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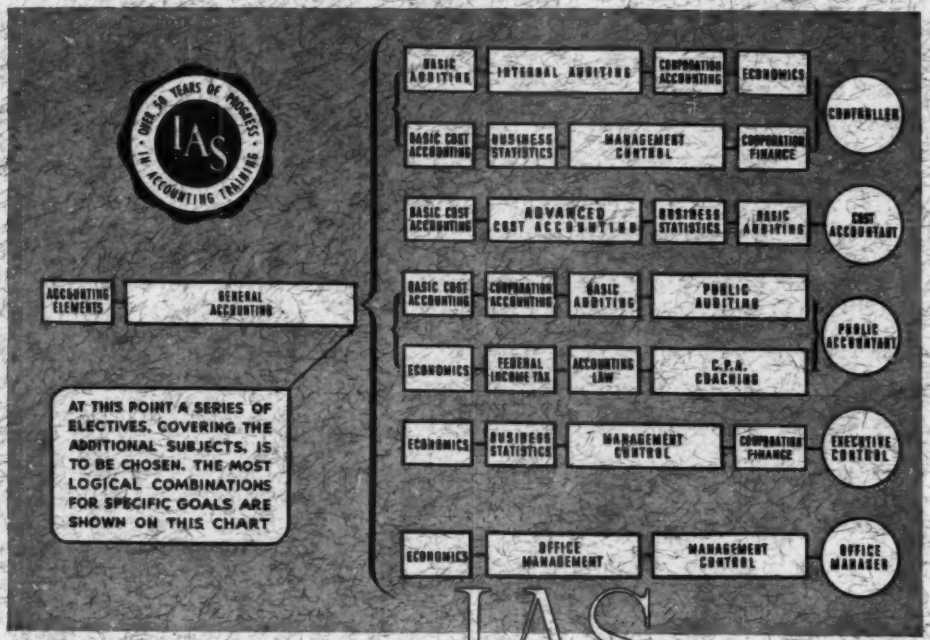

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2 March 1959

Dear Members:

We have just embarked on a program of paid advertising after having made a survey by a committee chaired by the writer and capably assisted by Messrs Richard Sawyer of the Army and William Scheela of the Air Force.

Your Editor is pleased to report that our first account in this connection is with the International Accountants Society, Inc., Chicago, Illinois.

Some of you had the opportunity of meeting the Washington Representative, Mr. August (Gus) Gruhn and the Field Manager, Mr. D. Windsor Dixon of I.A.S. at a recent luncheon meeting at Patton Hall, Ft. Myer, Virginia. Incidentially, your Editor is a graduate of I.A. S.

This is just the beginning. Negotiations are presently under way with some of the largest manufacturers of automatic data processing systems and other office machines.

Each and every chapter of ASMC is empowered and requested to appoint a chapter Editor to assist in a steady flow of articles from the field for publication in "The Armed Forces Comptroller".

Chapters, won't you notify your National Office of such appointments? Some of you have already done so. So think big, act big and we will be big.

Sincerely yours,

Kenneth E. Dunlap

Kenneth E. Dunlap
National Editor

THE ARMED FORCES COMPTROLLER

Quarterly National Journal

Vol. IV No. 1

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"The Armed Forces Comptroller" is a forum for the presentation of the activities of Military Comptrollership. The views set forth in articles, or other matter in this publication, are those of the respective authors; they do not necessarily represent the views of the Government Agency, the Armed Forces or the National Council of the American Society of Military Comptrollers.

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AUTOMATION – A REALISTIC OUTLOOK ON SCIENTIFIC MANAGEMENT IN BUSINESS

Submitted by R. Dean Caldwell* – U. S. Naval Ordnance Plant, York, Pennsylvania

***Author credits for source of material, article, "Successful Office Automation" by Mr. Ralph W. Fairbanks – President Fairbanks Associates, Inc.**

AUTOMATION IS EVOLUTIONARY NOT REVOLUTIONARY

Five hundred years ago accounts were recorded by a notation in a "Waste" book. At that time the educational facilities were very limited and very few people could read or write. As late as 1872 the English Government recognized the split-stick as a means of keeping accounts.

In 1890 the development ot carbon paper made it possible to produce multi-copies. By that time educational facilities had improved to the point where many people could read and write.

Then with the advent of the typewriter there began the deluge of paperwork which has grown steadily to the point it is today.

In 1890 the pioneer tabulating machine equipment was used successfully in compiling the United States Census. Crude as that equipment appears today, in contrast to modern office machines, its use made it possible to complete the tabulation in just one-fourth the time required for the census of 1880. This was the beginning of the punched card method of Accounting.

Since that time, due to the foresight of a few leaders in the office equipment field, many advances have been made resulting in the present-day conventional business machine equipment. The early business machine sales concept was to "sell" the machine and then design or change the customer's system to fit the machine.

International Business Machines Corporation completed and put into operation at Harvard University, the first "giant brain" in 1944. The first electronic computers were designed for the solution of engineering and scientific problems. The possibility of utilizing this type of equipment in commercial business applications was recognized and there began the trend toward medium and small sized computers designed primarily for use in the office.

The most recent development in office equipment has been a type of machine that makes it possible to produce by-product paper tape or punched cards automatically at the same time an original document such as an invoice, purchase order, etc. is typewritten. This means that with the verification of the original document, the necessity for further manual or machine verification of the information passed into the data processing system, is eliminated.

GREATER EFFICIENCY. LOWER COSTS. 100% ACCURACY. PUSH BUTTON OFFICES. A CLERICAL REVOLUTION. BUY OUR REMEDY AND YOUR TROUBLES ARE OVER.

The air is full of singing and promising phrases these days concerning the potential of automation for the office. The result, in most cases, is alternate optimism and desperation on the part of business, together with utter confusion as to what it is all about, what meaning it all has, how it can be applied and with what results.

Business men know that most of the singing phrases do have a foundation in fact, but they do not realize that the foundation in fact is based upon the phrases relationships to a thousand other factors. Confusion arises because there have been no guide lines, no attempt to place the facts in their proper order and sequence in the total picture.

THE OFFICE – RISING CLERICAL LOAD WITH HAPHAZARD GROWTH

In the past a small group of clerks working directly under the supervision of the company head got out the bills, kept the books balanced and performed all the other necessary clerical duties.

Then came the Industrial Evolution. Management became pre-occupied with the problems of production, the determination of better methods of production, research and design to produce better products and more efficient production machinery.

As production increased, as corporate structures grew and as taxation and government controls increased, the responsibilities of the office were accelerated. The introduction and growth of the corporate structure has required specialization and separation of office responsibilities and as a result departments were set up, each with its own responsibilities and its own system.

As the clerical load increased for each department, the solution was, and still is to a great degree, to hire additional clerks, which in turn further increased the work load because each additional worker added to the office burden.

There have been some improvements in machine applications and office methods. Unfortunately, management has been misled by these improvements into believing that clerical procedures are keeping pace with developments in the factory, but they are not.

BUSINESS HAS BECOME HIGHLY COMPETITIVE. MANAGEMENT HAS BEEN CUTTING PRODUCTION COSTS. OFFICE COSTS ARE BECOMING AN INCREASINGLY SERIOUS FACTOR IN TOTAL COSTS.

NOW – DEVELOP REALISTIC PROGRAM TO CHECK RISING COSTS

WHAT DOES THE OFFICE DO?

What products result from your office routine? Compare your office to your factory. The factory produces the item or items that are eventually sold to your customers. The raw materials are received and transferred to the initial point in the process of production and then there is a systematic flow of the material through the process until the final assembled product comes off the assembly line.

The raw material of the office is the information that comes in with the daily paperwork. The day to day processing is done early in the clerical process. Then the sums of all the information and actions taken are recorded for purposes beyond the immediate processing needs. The records and reports are the products of the office.

While the information is being processed it is used in a variety of different places for a variety of different purposes. This means that the same information is copied time and again. This duplication is very extravagant.

In the past ten years there have been two developments that make it possible to achieve automation in the office, the Systems Concept and high speed office machines.

The Systems Concept completes the pattern for automating clerical work. High speed office machines make it feasible to apply the systems concept to the very largest offices. What is the Systems Concept? The consideration of all office procedures and clerical routines as one vast system with a high degree of integration and automation where practicable.

SYSTEM DESIGN IS THE BASIS OF AUTOMATION

Even the smallest office, where there are no machines at all, can be systematized and integrated so that the raw material information received in that office is recorded once and that one recording serves all the clerical needs of the office. Our imaginary office has an order clerk, a bookkeeper, a shipping clerk and a supervisor. The order clerk makes three copies of each incoming order and gives a copy to each of his co-workers. Each clerk in turn would take off the information he needs and copy it onto his own records.

Under our new systems concept the order clerk would copy pertinent data onto a redesigned 4 part carbon interleaved form. The 1st part is a statement for the customer. The 2nd part is a shipping label. The 3rd part is a duplicate of the shipping label with additional checklines for "shipment made" and "statement sent". The 4th part is a ledger card with a checkline for shipment made. Now one manual recording creates the forms necessary for each worker in the office. The 3rd part is relayed through the office to inform each clerical station as soon as the shipment is made. Thus we have eliminated the necessity for re-copying the information after it was once copied and we have to a degree automized the flow of data by the use of check marks on a traveling copy of the order.

We have our systems concept and we have the machines to make that concept a reality for every office. Where do we go from here? You have to design, or rather, have designed, a new system for your office, a system that will give you the great benefits available, at machine and cost level appropriate to your operations.

Management plays a vital role in this changeover but the actual creation of an individual office's system calls for a highly qualified specialist. This is one of the big problem areas in this age of automation – The lack of trained personnel to perform the study.

Select your planner and make certain that he has the proper training.

FIRST STEP – ANALYSIS OF PRESENT ROUTINES

The first step in system planning is to find out what is actually being done in your own office. Each department's work must be placed in context with the work of all other departments. The planner must go to each department and sit down with the people who are doing the work and get a detailed description of all the work done. The planner should do the whole job of analysis. Each department should be analyzed individually and a chart should be made of its flow of work. Department by department there is built a total picture of your present office operations.

This of course takes time and management must be prepared to give the planner sufficient time to do a thorough job. If the planner does an incomplete job, the cost of filling in the omitted steps in the final revised system may be insurmountable and the delay in the conversion and installation schedule could cause the whole plan to fail.

During this 1st step the planner gets to know the people who are eventually going to carry out the recommendations he will make. It is his responsibility to gain their confidence during this phase of his work. He must also evaluate them and must evaluate the general working conditions of the office.

SECOND STEP – SETTING OBJECTIVES

After completing the survey of all operating areas within the office, the planner moves from the clerical and supervisory level at which he

was working to the departmental management level. He is now equipped to discuss the primary departmental objectives with the department head. He questions the department manager as to what the objectives of the department are. With his detailed knowledge of the operations of each department and the lines into other operating areas he is equipped to tell the manager which of his desired goals are possible, which are extravagant and which might even handicap the work of other departments.

After the objectives have been set for each department, the planner reviews them to select out inconsistencies or conflicts between areas. When any such inconsistency has been reconciled he reviews the objectives with the top management of the company.

THIRD STEP – CREATE THE PLAN

The planner has all his flow charts and he knows what the objectives are. He attacks first the objectives or "Products" that are the most costly to produce. We have a certain necessary end result. We have certain raw information feeding in from which that end result is created. What would be the most simple, quickest, cheapest way to turn that raw information into the end results. He forgets the current system completely and creates a new system or several alternate systems. He does not discard any plan that occurs to him. Some of them may prove not to be feasible. He can check that in the research phase of system planning. This phase is creative. Management must not expect routine progress reports from the planner.

FOURTH STEP – SYSTEMS RESEARCH

There must now be a thorough investigation made of the possible equipment that can be used in the new system. The planner must learn the potentialities and limitations of each of the machines that might logically be incorporated in the rough over-all approach to his system that he has evolved in the planning stage. It wouldn't do to place reliance on the past experience that the planner had in regard to the machines. Without thorough research, the planner cannot be sure of the potential of the media he has not worked with – he will be prejudiced in favor of the equipment he is familiar with.

FIFTH STEP – DETERMINE NEW SYSTEM

The planner draws flow charts detailing the work pattern of the new systems, constantly referring to the original flow charts of the old system in order to be certain that he has left out no essential step. These charts are in the rough because there still might be some changes to his system. He also may have alternate procedures that will be evaluated in regard to the over-all picture. It is a question of balancing and judging, considering and discarding alternatives until one procedure has been selected as the "one best way" in each area. That "one best way" is chosen to meet the requirements of the area itself and also to meet the requirements of the other areas connected with it.

Now the planner evaluates the notes he has made about the possible equipment that might be used at the various stages of processing. He has volume and cost figures that are considered. Again the planner goes through the process of elimination until he has the "best" machines to do the job. This step completed he has now reduced the final system to its essentials.

One final check to insure that everything hangs together, that the system is workable in every detail. For now the system is to be subjected to department management review and criticism.

SIXTH STEP – COST COMPARISON

In system design, costing is the critical point. It is here that you decide whether you ought to adopt a proposed system. If a new system does not promise you appreciable savings over the old in a reasonable length of time, after it is in full operation, then there is little point in converting to it.

Costing involves predicting what the costs will be in the future under the new system. In this prediction the planner must use the most scrupulous care and the highest sense of responsibility. He has created something and now he must gather the evidence that may well destroy his creation.

A base year of costs under the old system is selected and against these costs the planner compares his prediction of the future costs under the new system.

In predicting the future costs the planner must consider labor costs, including variances because of training personnel, new employees, supervisory hours; also machine costs; forms; fringe benefits; and conversion costs.

The planner must be capable of answering all pertinent questions and must be able to "prove" that his system will save money.

SEVENTH STEP – REORGANIZATION – PERIL POINT

One of the major objectives of any thorough revision is not only to destroy rigid department walls, but also to group work in logical patterns. These changes will often mean reassignment of functions that have, under the old system, been misplaced.

Reorganization affects human beings and therefore requires a great deal of discretion on the part of the planner. He must be guided by the limits set up by management in determining where the organizational changes can be made.

Changes in the organization should be kept quiet until management has definitely decided to accept the planners system. You must reckon with the possibility of a poor acceptance to this type of change on the part of supervisory as well as clerical personnel.

EIGHT STEP – THE MANAGEMENT REPORT

The summation of all that went before in system revision is embodied in the report the planner now prepares for top management. This report is the history of his work and on the basis of it management makes the decision to accept or reject the new system.

A good management report consists of the following:

1. The Letter of Transmittal – covers the major benefits to be expected from the new system, including the major area of savings, the important initial costs it will make necessary, and changes to the organizational structure.

2. The Introduction – gives a brief history of the entire process of system design up to this point, covering every step in the process.

3. A Recapitulation of the Objectives – as set for the new system by planner and management early in the process.

4. A Detailed Comparison of Costs – for the new system as against the old, including the initial capital investment, conversion costs, and attached schedules showing the factors taken into account in determining the running costs of the new system.

5. A General Picture of Major Organizational Changes – under the new system, with some indication of the added responsibilities to be assumed by clerical and supervisory personnel under the new system.

6. A General Conversion and Installation Schedule – showing the target dates for conversion of the various departments to the new system.

In addition to the 6 parts listed above there is also submitted the Operations Report which contains the flow charts and the descriptive text prepared by the planner to describe his new system. Finally he adds the exhibit report, showing samples of forms and pictures and specifications of machines to be incorporated into the new system.

NINTH STEP – CONVERSION AND INSTALLATION

The period of transforming a system plan into the actuality of a smoothly running office is a most critical one for the company. Some unexpected delays and setbacks will always occur during conversion and installation, no matter how carefully you have tried to anticipate every contingency. The degree of care you use in planning for the changeover will determine just how many setbacks there are, and how serious they are.

Your conversion should be based on a timetable that dovetails the ordering of forms and equipment and the simultaneous training of your people to handle these items. The new procedures should be tested by pilot and parallel runs before actual changeover is made.

The human tendency to panic when things go wrong should be anticipated and countered by management. Back your system all the way but watch your costs. They are your barometer. If costs are seriously out of line with the estimates, then bad trouble is developing somewhere.

Maintain an outward appearance of confidence in the new system for the sake of office morale.

The planner should remain on the scene as a guide and advisor during the period of conversion and installation for he is better equipped to meet the crisis that may arise during changeover.

Thorough and meticulous conversion is the best insurance for smooth and successful installation.

THE NEW SYSTEM – BARGAIN OR EXTRAVAGANCE

The dual purpose of the system revision was to improve efficiency and to cut costs. As far as the flow of work is concerned it will soon be apparent if the new system isn't working well.

If things are moving faster, data flowing thru the office more quickly, errors are reduced, customers serviced better, if complete, accurate and timely reports are going out, then you know the new system is working. What you don't know is how much it is costing. You cannot compare the new actual department costs against the old actual departments costs because in all probability some of the functions were transferred from one department to another. The conversion and installation is done department by department and you cannot afford to wait until the whole system is completely installed to check how your costs are running under the new system.

So you take the estimate of the costs for the department concerned, convert the estimated volume to the actual volume and calculate a new estimated cost based on the actual volume. Then compare this new estimate with actual department costs under the new system and you will be able to see where you are going cost-wise. Of

course, you have to keep in mind the fact that the brand new system is not working at peak efficiency during its first months.

This comparison can be done department by department as the conversion and installation is completed.

What I have attempted to do is give you an outline of a new concept which I firmly believe in — The Systems Concept. It is my belief, that by the intelligent use of this concept the continuously mounting clerical costs can be checked and in all probability those costs can be started on the road downhill. Of course, you realize there are many many details that I did not go into. One thing I would emphasize to you is that a thorough job must be done. Do not hurry through it. Haste makes waste.

KNOW YOUR OFFICERS

Claude David Baldwin
Air Force Vice President ASMC

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Married.

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M.S. 1938 University of Illinois (Economics)
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Mar 51 to Jul 51 - Central Intelligence Agency. Duties Classified.
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Apr 49 to Oct 50 - Vice-President, Jefferson County Bank, Lakewood, Colorado.
Jan 47 to Mar 49 - In business with brothers. Baldwin Finance Co., and Baldwin Motor Company, Denver Colorado
Jan 46 to Jan 47 - Assistant Professor of Economics, Indiana University, Bloomington, Indiana (Statistics and Comparative Economic Sys.)
Jan 43 to Jan 46 - U. S. Navy, active duty, Lieutenant, Supply Corps
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ADDRESS OF
MR. JOHN M. SPRAGUE, DEPUTY ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)
BEFORE THE AMERICAN SOCIETY OF MILITARY COMPTROLLERS, WASHINGTON, D. C.
OCTOBER 23, 1958

OPPORTUNITIES OF THE MILITARY COMPTROLLERS

Mr. President and Members of the American Society of Military Comptrollers:

Secretary McNeil regrets that a previous speaking commitment prevented acceptance of your invitation to address you here today. At his suggestion and with your indulgence I propose to visit with you this morning on the subject of a businessman's impressions of the opportunities of the Military Comptroller.

First, I must explain that I came aboard the SS Pentagon only six weeks ago for a two year tour of duty. Therefore my impressions are somewhat superficial and probably of no profound value to you gentlemen.

About the only thing I have learned to date about your business is such "Pentagonese" expressions as "state of the art," "sophisticated weapons", "configurations", "parameters" and "I speak to the subject". I do not know what these words mean in the Pentagon context, but they sound pretty important.

Seriously, gentlemen, my first six weeks at the Pentagon have been a most stimulating experience. My initial as well as continuing reaction is one of complete awe inspired by the vastness of your operation. I am told that the investment or net worth of the Department of Defense is in the order of $150 billion or 25 percent greater than the assets of our 500 largest corporations. Your annual budget of some $40 billion is equal to the lifetime savings of our 20 largest corporations.

Obviously not one of our major international corporations can begin to experience the variety and number of problems found in the Department of Defense. Truly the Military Comptroller is the trustee for more problems in fiscal management than any corporate comptroller ever imagined.

Problems have been described by some servant as opportunities – in this instance opportunities associated with the responsibilities of the Military Comptroller.

What is the Military Comptroller's first responsibility? The Number One responsibility of the Military Comptroller in my humble opinion is to insure to every extent possible that we maintain a fully capable military posture. No action or decision on the part of the Military Comptroller should be made in the name of good business practices or efficiency if it compromises his first responsibility. From my brief association with the Department of Defense I have concluded like many others that we should be satisfied with a reasonable degree of efficiency compatible with our Number One purpose.

Within the frame work of the money appropriated by Congress and the President's Department of Defense program, it is considered your responsibility to supply the fiscal management necessary to insure a fully capable military defense posture.

Unlike the corporate comptroller of my experience you do not have to concern yourself with the problems associated with finding, producing, refining and marketing enough oil to make a profit. You are not involved in paying dividends, raising new capital, sharing half your income with the tax collector, negotiating with unions, keeping the stockholders happy and trying to steal your competitors' customers.

This comparison is not intended to imply that the corporate comptroller has as many problems as the Military Comptroller. He has many similar and many different problems, but certainly not as many critical problems. The fiscal management tools used by each are quite similar and I am sure equally effective if uniformly and consistently applied.

To me, the technological era in which the Military Comptroller is now operating makes his job doubly challenging. I refer here to the new developments and concepts in weapons and weapon systems, and the changing military roles of the three departments. I note from the program that the theme of your Second National Convention meeting here today is: "New Horizons of Comptrollership in the Armed Forces". This to me indicates that you gentlemen recognize the increasing importance of your role in this most revolutionary transition era.

The Department of Defense cost associated with this transition period has contributed to a level of Federal spending that promises a deficit picture on the Treasury's books for this fiscal year and probably for the next several years. This deficit prospect or reality has developed in a peacetime economy during a period of an increasing national product and high income taxes.

By and large no individual or corporate taxpayers of my acquaintance complain about Defense's share of the tax dollar. All are uniformly concerned that we develop the best defense capability that American research, ingenuity, "know how", and efficient fiscal management can contrive. To the extent money is a factor in shifting our defense posture to the combat ready requirements of a new weapons era, we must make the best use of our budget funds that you Military Comptrollers can devise. To the extent that money is not a factor, improvement of our

research and other capabilities must be encouraged by all of us in every way possible.

I have been told by the Pentagon historians that progress in the field of military fiscal management has been steady and gratifying over the past decade. Reference is made here to budgeting, funding, accounting, financing, progress reporting and auditing.

I am sure that this is the case and you can take a justifiable pride in these accomplishments. However, it is only fair to go on record here and now to the effect that Federal budget appropriations systems and fiscal control procedures utterly confuse and confound me and probably other businessmen of equally short association in the Department of Defense. Recognizing the time honored statutory limitations on your fiscal procedure exerted by Congress, I do not make this statement critically but somewhat hopelessly groping for an explanation.

As I understand the established budget routine, you present your Department of Defense budget to Congress who appropriates the funds in the form of new obligational authorities attended usually by some restrictions and directives. In effect, Congress sets up some 30 or 40 appropriation bank accounts. The President then approves the program, possibly with some added restrictions.

Next the military departments petition the Bureau of the Budget for apportionments out of these bank accounts, which, when granted, may also carry additional restrictions. The military departments then allot the money to their subdepartments, bureaus, functional activities and sub-units. It is observed that the organizational structure of the departments may not be compatible with the multitude of bank accounts and limitations established by the Congress.

The complexity of your job in accounting for your obligations against current and prior fiscal year authorities, monitoring the commitments over and above the amounts obligated and finally keeping track of expenditures against a target figure, appears to be an almost superhuman task.

The first reaction of a neophyte is why doesn't the Government go on a cash or expenditure basis. Actually the Treasurary Department keeps the day-by-day score in terms of cash receipts and disbursements. Yet it is manifest that both the Congress, the Bureau of the Budget and you gentlemen still need an obligation and also a commitment control over long lead time programs providing essentially full funding at the time of approval by Congress. Admitting the Shortcomings of a cash system, it is obvious that the present appropriation system is less than adequate for purposes of planning and evaluating the respective major weapon and communications systems, particularly in their long range financial implications.

Obviously the appropriation system can be only a guide to expenditure monitoring. The stipulation of expenditure limits without a positive tool to control expenditures puts the Comptroller in a position of trying to run in both directions simultaneously. You certainly have my sympathy.

The practical role of the budget in companies of my experience is one that aids fiscal planning and execution. If it forces all levels of management to take a look as to where they are going and restates acceptable standards of performances. In Government the budget also operates in a legal role used for policing and validating obligations and expenditures. This legal role seems to overwhelm the fundamental planning and program values associated with a budget. Again, I say that these observations are not made critically but in recognition of some of your perplexing problems for which there is no early solution.

Admittedly the budget tool in business is largely associated with fixed assets or capital investment programs. Such proposed investments are evaluated almost solely on the basis of profit return on investment after taxes and the time required to pay out the investment and return the original capital after allowance for income taxes. Review of accomplishments implies use of the same yardsticks.

The operating departments who plan and execute the programs are concerned with funding only to the degree that each function – say crude oil production, refining and marketing – is required to generate enough cash through profits and depreciation reserves to finance its respective program. Research, development, test and evaluation, is budgeted on a level-of-effort basis for specific project areas.

The considerable time required of the military Comptroller in the matter of budget compilation review and subsequent defense is probably greatly disproportionate to that devoted by the corporate comptroller. It is my observation that this is due to the vast number of individual and related component programs, their complexity and global scope. The method of assembly and the numerous test and review channels make for a seemingly endless process. These problems are surmountable and tolerable if you get timely program and policy decisions in the more controversial areas. This is a problem in industry, but not to the degree observed in the Department of Defense.

Your program requires early decisions as to strengths and composition of forces, their possible deployment and utilization, the degree of ordnance modernization necessary, the levels of equipment needed for mobilization reserves, etc. Having determined these fundamental factors for the short and long term outlook, you proceed to build in a research and procurement program, a public works and ship construction program, a missile program and provide all hardware necessary to carry out the strategic and tactical planning necessary for roles and missions. It is a monumental task which makes corporate budget compilation appear Lilliputian and languid by comparison.

It is appreciated that in a multiple service operation of the size and diversity of the Department of Defense, procedure standardization and uniformity are difficult and unending projects. I recall these programs in my own company where the parent was receiving incompatible budget, financial and cost reports from its some 200 subsidiaries. It required almost ten years to establish all the subsidiaries on a uniform and comparable basis wherein budgets, profits, costs and relative efficiencies could be compared, evaluated and all policies unilaterally executed.

I might mention in passing that competition between the military services for roles, missions and budget dollars is not unique to the Department of Defense. In my industry experience one subsidiary competes with another for roles, missions and funds. Even within a single company like the one of my latest affiliation the exploration, crude oil production, refining, and marketing departments each consider their function to be the most urgent and important in the matter of capital fund allocations and priorities. Seemingly there is never enough capital to satisfy all departments. This means that the requirements of each must be considered in both their long term and short term potentialities on an over-all company basis. The final decision as to fund allocations is made by the Board of Directors on a basis that will insure the best long range profit picture and competitive posture for the company as a whole.

I have noticed that budget and appropriation considerations take priority over cost accounting in the Department of Defense. Most unique to me is the fact that you charge military pay and allowances to one global cost account rather than let such costs follow through to the benefiting activity. Whether combat, support or administrative function, you preserve the identity and integrity of such costs in the original appropriation account. As a novice in your business I humbly suggest that a more realistic picture of your functional costs and opeating efficiency would be developed if your military manpower costs were charged to the benefiting activity. Possibly the price you would have to pay for such an industrial conventionality outweighs its promise of usefulness.

Another business cost free to the benefiting military activity is depreciation. It is understandable that a Government operation having no tax obligations at either local or Federal level should not be seriously concerned with this proration of the cost of fixed assets.

Your practice of not distributing the administrative overhead and military pay costs of host base installations to the guest activities is unique to my experience. All costs associated with our oil field camps are distributed to the benefiting line activity. This is essential in the oil business in order to recover pro rata costs from your non-operator lease partner.

Particularly gratifying to me is the ingenuity you have demonstrated in the use of some $650,000,000 in industrial funds to operate your manufacturing and service facilities. You have provided an excellent vehicle to encourage the use of sound fiscal management principles and stimulate the entrepreneur instincts of industrial fund managers. This has been accomplished despite the omission of full costs such as military pay and depreciation in your rate and tariff structures. I understand that some consideration has been given to incorporation of military pay in cost and rate structures. I agree that inclusion of depreciation is probably academic and only useful in building up statistics for private industry rate comparisons.

I am most favorably impressed with the enthusiasm and dedication of your industrial fund management, and their intelligent use of the time-tested fiscal management techniques such as planning, programming, scheduling, engineering standards, data processing and the like. The Air Force MATS operation, the Navy's MSTS and the Army's ordnance installations which I have lately heard reviewed seem to be in excellent business hands. I am sure that they will be exploited to the full limits of their economic potentialities with significant savings over the old appropriation concept. I am told thay you have plans underway for the further expansion of this program, particularly in the field of aircraft engine overhaul which I understand offers cross-servicing capabilities.

An additional observation I have to offer in this area as well as for stock funds is that the system's primary function should be to improve the supply operation and deliver the right goods and services on time. Its importance as a fiscal management tool per se must be subordinate to the prime function of supply.

With respect to your military industrial operations, I would like to acknowledge briefly several of its unique justification features which the average businessman and legislator may overlook. The first relates to the necessity for maintaining a reserve industrial mobilization capacity which can be tapped in times of emergency. This makes for idle or partial use of facilities. Secondly, it is required that you be largely self-sufficient of private industry insofar as development and the pilot manufacture of certain ordnance tools of your trade. This also results in facilities operating below rated capacity. Therefore it is not valid to compare cost experience with private industry. Thirdly, it is only fair to recognize that certain statutory restrictions preclude flexibility in the matter of full plant utilization.

Speaking generally of idle reserve capacity, I do not feel it inappropriate for the Comptrollers to examine such unused capacities in the light of changing weapon and weapon delivery systems. Such a reappraisal would, of course, envision requirements under both general and limited wars. Possibly our "in-house" and industrial mobilization program has not been brought up

to date in view of the new weaponry and other missile age concepts.

I am impressed with the initiative you gentlemen have shown in the matter of stock funding and single manager operations. All these practices and techniques employed in your $12 billion stock account have been used in the oil industry for many years, particularly where the oil lease operator provides all industrial and supply services to his non-operating partner at either cost or prescribed commercial rates. Like the military, these operations are typically carried on in remote locations not convenient to established urban supply centers. It has been our experience that purchasing and accounting people working as a team do a fine job in getting the material on the job within the fiscal framework of stock funding.

I appreciate that these funding devices do not work equally well in all categories of supply and services, but I do feel that the success we have had in industry over the years, and possibly your experience, endorse further Department of Defense expansion of stock funding. You of course get an extra bonus in the Department of Defense because this technique permits automatic apportionment.

It appears to me that the really big bonus the Department of Defense gets from industrial and stock funding operations is in the fiscal management training area. Due to your relatively short tours of duty in the military you cannot expect the degree of continuity of fiscal management typical of industry. It is my observation, however, that the management of your industrial plants and stock funds has an excellent appreciation of what it takes to run an effecient operation in a competitive industry.

As a result of this exposure they will apply good business principles to their future assignments, and in turn, train others. This process will inevitably fund a great reservoir of business skills and capabilities within the Department of Defense and develop a spirit of competition in performance standards. The end result, of course, is a uniformly better military posture by virtue of plowing the dollar savings of good stock and industrial management into the top priority military hardware and troop training. The Treasury's deficit position contributes additional endorsement to the need for this concept.

Speaking of training, I would like to commend you gentlemen for the job you are doing in the field of Comptrollership and fiscal management. I understand that this is being programmed on both a formal basis as well as "in-house". Certainly your society with its international scope can make no finer contribution to the business posture of the Department of Defense. It is the concept of my company that whoever occupies the Comptroller's chair must be potentially qualified for a higher managerial job in line operations or on the Board of Directors. This concept is backed up by formal training programs designed to produce successor comptrollers of the desired potentiality.

I am sure that one of the areas of great concern to you gentlemen and others of the Department of Defense management is the dollars tied up in surplus consumables, military hardware, industrial tools, idle plants and bases. As agreed earlier the Department of Defense function requires reserve mobilization capabilities within modern weapon and tactical concepts.

However, I refer here only to those surpluses for which no immediate or eventual need appears to exist within the three military departments and the Military Aid Program. I believe that this is one area where industry does a better job than the Department of Defense. The credit for industry's performances is due in considerable measure to the county tax assessor who penalizes sloppy fiscal and supply management quite severely. Congress by appropriation has formally recognized the need for a better job in this province. I am sure that you Comptrollers, assisted by appropriate related decisions and some changes in the statutory ground rules can contribute significant savings in these areas.

Another area of Comptroller opportunity appears to me to be in the various cost-plus contracts for procurement and research, development, test and evaluation. Here the Comptroller can contribute importantly to getting more for the Defense dollar. I suggest that the ingenuity and inventiveness of you gentlemen could be well devoted to contract incentive features which would reward good contract performance and penalize ineptness. I am afraid that in this area form has tended to govern substance and judgment may have been replaced by paper work.

I acknowledge that you gentlemen have more than your share of advisors and second guessers. These include Congressional Committees, the Treasury Department, the Bureau of the Budget, the General Accounting Office, Hoover Commissions, Cooper Committees, Rockefeller Commissions, Secretary of Defense, and others. I am sure that you do not need all of this advice to do your job. Undoubtedly you have your own ideas of how to do a better job.

THE ROLE OF THE COMPTROLLER IN THE AIR RESEARCH AND DEVELOPMENT COMMAND

Brigadier General Richard L. Scott
Comptroller ARDC — United States Air Force

I am grateful for the opportunity to contribute to the Society's journal. In my opinion, comptrollership within the Department of Defense is being enhanced by this method of exchanging ideas of mutual interest.

The purpose of this article is to acquaint readers with the mission and methods of management used by the Air Research and Development Command of the United States Air Force, and the contribution made by the comptroller in the management of this organization.

A Brief History of ARDC

In the less than a decade of its existence, the Air Research and Development Command has grown from a tiny nucleus of ten officers and twenty civilians at its birth on 23 Janauary 1950, to an organization whose far-flung effort extends geographically from coast to coast, with two outposts in Europe, manned by a personnel strength (as of 30 September 1958) of 46,407. The Headquarters of the new command was first located in Washington, D.C., but in November 1950 it was moved to Wright-Patterson Air Force Base, Ohio, there to receive on-the-job training in the management of its new function from its counterparts in the Air Material Command. By April 1951, the command was ready to assume its responsibilities and was assigned jurisdiction over USAF installations and activities engaged in research and development. Following the assumption of command responsibilities, the Headquarters was relocated in temporary quarters in downtown Baltimore, Maryland in June 1951. In January 1958 it moved to its present location at Andrews Air Force Base, Washington, D.C.

Objectives, Mission and Organization

The basic objective of the Air Force research and development effort is to maintain a qualitatively superior Air Force. Technological advancements continue to be made at an ever accelerated pace, and superior weapons can be expected to determine the victor in any future conflict. Our national survival depends upon our making maximum use of present technology in the design and development of effective weapon systems and equipment, and upon continuing research to keep ahead of potential enemies in the ability to provide better weapon systems and equipment for future operations.

The responsibility of the Air Research and Development Command is to attain and maintain qualitative superiority of aeronautical and allied equipment and to conduct or supervise scientific and technical studies required to accomplish the Air Force missions; to seek new basic knowledge for developing improved aeronautical equipment, material, weapons and techniques; to develop and recommend new and improved devices and systems for conducting and supporting air warfare, including complete weapon systems, techniques and procedures.

The Command is organized into nine Centers with the Headquarters located at Andrews Air Force Base. The organization also includes an Office of Scientific Research, Air Force Ballistic Missile Division, Armed Services Technical Information Agency, and the ARDC European Offices. These Centers and other activities are engaged in various phases of research and development, from original research on components to final tests of the completed weapon systems under simulated battle conditions.

The R&D Management System

Management of research and development is becoming a frequent subject of discussion. One of the reasons it has gained so much attention is that this type of function does not lend itself to many of the time-tested methods of management employed in well established fields of endeavor. There are many paradoxes in managing research and development. For instance, rigid controls designed to insure profitable R&D can often stifle creative efforts. On the other hand, the absence of any control techniques can be equally disatrous. It must be assumed that planning, programming, and monitoring of R&D programs can be effectively accomplished within the framework of certain sensible control techniques. It is necessary that management be constantly aware of the progress and problems connected with individual projects. Charting a course between rigid control and no control is one of the most difficult problems in the administration of research and development. R&D directed along wrong channels or not directed at proper military requirements can waste money and other resources more completely than almost anything else an organization can do. Not only do we lose because of having spent money on projects that are not productive, but we lose even more heavily because many important projects that should be done are not done. In the Air Research and Development Command, as in many industrial organizations having substantial research programs, management is exercised on the basis of individual projects included in broad research and develop-

ment programs. These projects are grouped into categories known as program structures. In those cases where the projects are directed to developing components of complete systems, the individual projects are grouped by the specific system to which they apply. In those cases where they are not system-oriented, the projects are grouped into technical areas such as Geophysics, Weapons and Guidance, Electronics, Aeronautics, Life Sciences, and Physical Sciences. All programming, budgeting, accounting, reporting, and analysis are oriented to this management concept.

A project is incorporated into a program only after certain actions have been accomplished. Figure 1 indicates the actions and their flow through the various echelons of command.

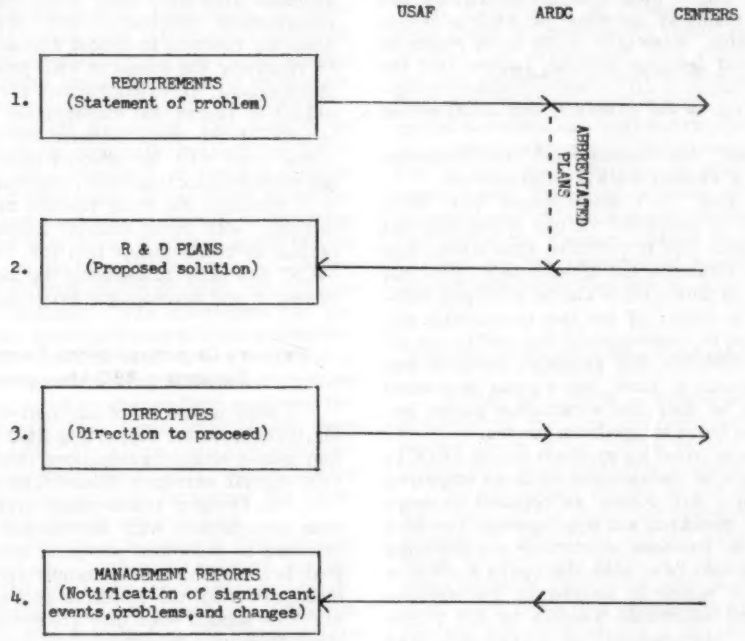

FIGURE 1. FLOW CHART, R&D

No research and development is performed until a requirement is established, a plan prepared, and execution of the plan is directed. The first step in planning is establishment of objectives for R&D efforts. Headquarters USAF states operational needs based on operational planning and the existing technical capability. Headquarters ARDC establishes a requirement describing or interpreting the needs to be satisfied, and designates the ARDC Centers that are to perform the work.

The next step is preparation of a plan to attain the objective stated in a requirement document. The proposed plan states the probable resources and the time required so that higher authority can decide whether the end product will justify the expenditure and therefore whether the effort is to be undertaken. When approved and implementation is directed, the plan serves as a resource justification and operating document for the organizations doing the work. When the end product is a system or equipment, the plan provides other commands with the necessary information for personnel and logistical support and effective tactical use.

Thus we have stated requirements, proposed plans to meet the requirements, and a directive to proceed with the work. The last phase that completes the cycle is the management effort--the preparation and evaluation of reports which notify all managers of significant events, problems, and changes, and from which follow-on decisions are made and actions directed. This is the area that presents major management problems.

Problems Inherent in Managing R&D Programs

Three basic problems permeate the

management of research and development programs. First is the problem of programming and managing mental activity and the results of such effort. Secondly, research and development systems delve into the unknown, and previous experience in any given area is usually absent. Thirdly, the very nature of R&D requires an excessive number of changes in established programs. Standard accounting, budgeting, reporting and analytical systems and techniques can and will, as the state-of-the-art progresses, play an increasingly important part in the management of R&D programs, but to be of significant value to R&D management they must be oriented to the R&D method of doing business. At present, these systems provide little historical data that are of major value to the R&D planner and decision maker. Consequently, the use of these standard systems in R&D is highly impracticable, especially in the early stages of planning and decision making. Herein lies the major challenge to all personnel engaged in supporting large scale research and development programs.

Further, the management and attendant problems of extensive R&D programs are relatively new. As a consequence, very little experience is available for use in planning and directing this type of function. Most executives engaged in research and development agree that programs of this nature can be managed without going to either of the two undesirable extremes; that is, over-control that sfifles and insufficient attention that produces waste of that fleeting resource, time. But a great deal more work must be done and experience gained before we can chart an optimum course.

The most pressing problem facing ARDC is the variance in management systems employed for the total Air Force as opposed to those needed for research and development. Systems developed by Headquarters USAF are designed to fit the pattern of across-the-board Air Force management which is geared to the organizational and functional aspects of Air Force operations. Management of research and development, as previously stated, is geared to individual systems, projects, and tasks. It is quite obvious that as a major command of the Air Force, ARDC must conform to the standard pattern of management as directed by Headquarters USAF in order to permit that Headquarters to conduct the business of the total Air Force, of which R&D is an integral part. It is also obvious that R&D management must have the type of support it requires to conduct successful programs. The basic problem facing the comptroller in orienting its efforts to the support of research and development is one of bridging the gap between the two methods of management.

The Comptroller Organization and Functions in ARDC

The functions and organization of the comptroller within the Air Research and Development Command are essentially similar to those found in other major commands of the Air Force. The emphasis on R&D is placed within the inner workings of the organization. For example, there is an organization within Budget whose sole function is to support the weapon systems managers and another to support the research managers. In accounting, standard systems are supplemented to provide special shred-outs oriented to R&D jobs. In addition, entirely new systems have been developed for our purposes. Data processing systems also have been tailor-made for R&D management purposes. The Management Analysis function is almost exclusively devoted to reporting the status of R&D programs to top management. All organizations are closely integrated to insure that management receives full benefit of the total comptroller organization. Little time will be devoted here to standard operations associated with comptrollership since it is assumed that most readers are thoroughly familiar with these details. Emphasis will be placed on those things that the comptroller in ARDC has done to assist in the management of research and development programs.

Primary Objectives of the Comptroller in Supporting R&D Management

A summarization of our motives in developing techniques for supporting R&D management may assist other organizations required to provide similar services. These objectives are:

a. Develop tailor-made systems to provide management with information and reports oriented to individual projects. Inherent in this goal is the ability of the comptroller to provide managers with the products and services and services needed when they are needed and in the exact formats desired.

b. Provide the Command with data banks from which significant events, problems, and changes can be determined on demand and from which all reports can be extracted directly through the use of mechanical techniques.

c. Provide a means of correlating program and status changes so that responsible officials can evaluate the impact of these changes on the entire program.

d. Relieve technical and scientific personnel of routine paperwork. A frequent complaint of scientific and technical personnel is the requirement for spending unreasonable amounts of time in preparing reports, schedules, and other miscellaneous paperwork. Every

action that alleviates this problem automatically releases additional effort for the more important technical tasks.

e. Develop a truly integrated data processing system whereby duplication and unnecessary posting, adding, calculating, and reporting are eliminated.

New Comptroller Concepts and Tools Developed for R&D Management

As stated previously, the major problem continuously facing the comptroller within ARDC is the development of concepts and techniques for the management of research and development programs. The theories of some of our new concepts and tools are not necessarily original. However, the successful application of these techniques and tools does represent progress on the part of the comptroller in supporting management. The more important of these techniques and tools are summarized briefly as follows:

a. Exception Reporting. The majority of reporting systems require the preparation, summarization and forwarding of reports through the chain of command. In the R&D reporting area, we have instituted a system of reporting only changes that occur during a given period of time. These changes are fed from the Centers to the Headquarters where the basic records are updated accordingly. This eliminates the requirement for lower echelons to submit complete reports at certain intervals. It was found that in the majority of cases, most items of information reported reflected no change from previous reporting periods. This same principle has been adopted for other Air Force and ARDC systems. This technique has substantially reduced Center workload and has greatly increased the timeliness of our products and services.

b. Utilization of Electronic Data Processing Systems and Transceiver Network. In order to provide the capability for instituting management reporting on an exception basis, a medium scale EDPS was installed in the Headquarters and a network of transceivers was installed at all Centers and connected with the Headquarters. Through the use of this equipment, daily changes are now allowed to flow quickly and accurately into the Headquarters where they are processed and basic files updated. Little time will be spent in this article dwelling upon the capabilities and utilization of EDPS since it is assumed that most supervisory levels are thoroughly familiar with this subject. It is sufficient to say that the use of this new tool opens the door to the adoption of many new techniques that heretofore have been impossible to implement.

c. Accuracy for Management Purposes. In order to exploit the full potential of the exception reporting technique, rapid communications, and the use of EDPS, it was necessary to forego 100% accuracy since such a degree of accuracy is not essential for top R&D management purposes. A great deal of the data processed reflects the status of finances, and current regulations require that all books, ledgers, and reports be in complete agreement. However, such reconciliation requires a considerable amount of time. For the purposes of R&D management, exact reconciliations are eliminated because a satisfactory degree of accuracy can be guaranteed without the time consuming reconciliation process. After-the-fact checks indicate a variance of not more than 2%. Of course all requirements governing accounting and reconciliation practices are complied with when official books are closed and reports rendered.

d. Elimination of Unnecessary Reporting. Many areas of unnecessary reporting have been isolated and eliminated. One significant area that was uncovered is worthy of mention. It was found that subordinate echelons were being required to submit information previously furnished by the Headquarters. Our system was modified to have such changes fed directly into the management reporting system at the Headquarters and then forwarded via transceiver to the applicable Centers. More important, the Centers are not required to report this information back to the Headquarters.

Example of Applying New Concepts and Tools

It may be helpful in understanding the application of the new concepts and tools discussed above if we outline briefly an example of how they were applied to a specific system.

As previously stated, actual control of the R&D program is exercised primarily through a system of priorities and the programming of funds by individual projects and the grouping of these projects. To provide reports to the management staff reflecting changes in programming, funding, and the progress of the initiation, commitment, and obligation of funds, a system was in existence which required the submission of monthly recurring reports from each ARDC Center. This system provided a series of reports which showed, by line item, the status of the various control items; that is, priority, program, funding, etc. The reports produced from this system were processed on conventional punch card equipment and were made available to the staff three to four weeks after the as-of date of the information. The nature of the R&D program made the reports almost worthless to the managers.

In correcting this situation, we first adopted the change reporting system and required only

approximate data in lieu of exact information. Also, we eliminated the requirement for reporting units to submit any data that originally emanated at a higher headquarters. Using the transceiver network and the EDPS, we now process the changes daily and provide the staff with a summary of these changes 48 hours after the close of each week's activity. At month end, the basic files are cut off actually as of the last day of the month, and reports are prepared and placed in the hands of the staff by the end of the fifth work day following the end of the month. For the purpose of brevity in this article many of the details have been omitted. However, this serves to demonstrate the use of the new concepts and the utilization of modern tools. These same philosophies, tools, and systems design are being applied to other areas on an individual basis.

Summary

It has often been said that great struggles can usually be reduced to a single issue. Future history may well trace our national success or failure to the scope and magnitude of research and development in our area. In considering this thought, it is well to ponder one inescapable fact. An organization can pour huge amounts of resources and energy into R&D programs and still not be rewarded with desired results. It is management that decides success or failure. Sound programming, effective coordination, dynamic decision making, timely and accurate reporting, and careful evaluation of results are the major ingredients of successful management. The basic motive of comptrollership in ARDC is to provide the products and services that will contribute to the continuous presence of these ingredients in the management of Air Force research and development programs.

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Letters to the Editor — Most Outstanding:

"The article "Human Relations Applied to Air Force Comptrollership," by Brigadier General Paul W. Scheidecker, is one of the most outstanding articles of its type I have read, and certainly is not limited to the Air Force. I wonder if some of the principles he expounds would not be readily susceptible to condensation in the form of a "bible" for comptrollers in general."

Very truly yours,

Thomas D. Allen, Jr.
Kaiserslautern Branch
U. S. Army Audit Agency
APO 227, New York

Brigadier General Paul W. Scheidecker — Care to comment?

EFFORTS TO SIMPLIFY ACCOUNTING

Colonel A. E. R. Howarth
Director of Accounting
Office, Comptroller of the Army

PART I
LOW DOLLAR VALUE ISSUES

As pointed out last year, a heavy workload is generated in supply and Financial Inventory Accounting operations by the large volume of low dollar value transactions. At first glance the problem appears to be fairly simple, but its real significance comes into focus when certain statistics on supply are reviewed. Figures for the Fiscal Year 1957 show that 88% of all items of supply of O&M and repair parts had an annual volume of issues of $1,000.00 or less and amounted to only 3% of the total dollar issue world-wide. These figures show that item wise we are discussing a great part of Army supply system and dollar wise only a small part of it. Similarly, observations by OCA staff at ZI installations indicate that from 30% to 40% of all issues were for $1.00 or less.

The implementation of the Army Field Stock Control system with single line issue and turn-in slips has substantially increased the amount of paperwork and administrative workload at posts, camps, and stations. It is realized that the field stock control system has distinct advantages, such as expediting supply, reducing the number of items stocked at installation level, and obtaining more significant data regarding demand and issue experience. A real disadvantage of the system is the requirement for single line requisitions which run into the thousands at many installations.

Numerous field visits have been made by OCA and DCSLOG representatives in an endeavor to find a solution to the problem of reducing paperwork connected with low dollar value transactions and many field survey reports have been submitted with criticisms in the area. No single, over-all solution has been developed, but several things have been done or are being considered that should alleviate the problem.

The nearest approach to the ideal solution to date is the Self Service Supply Center. I am sure all of you are familiar with this operation which has been installed in all major CONUS installations. The draft of an Army Regulation 735-32, covering self service supply operations has been staffed and is ready for publication. This regulation simplifies accounting requirements at the center and provides for the inclusion of additional low dollar value items of hardware and hand tools for center distribution. The system provides for internal controls and a method for distributing costs to various activities with a minimum of paperwork and administrative workload. One of the principal objections to to the inclusion of all low dollar value items in the Self Service Supply Center comes from the maintenance element DCSLOG which insists that items of repair parts peculiar to certain equipment must be stock controlled to the point of consumption in order to satisfy logistical requirements. This requirement is best satisfied with item increases and decreases and is best accomplished under the Army field stock control system. The maintenance staff is further reluctant to placing many items of repair parts in the Center because of the possible misuse of parts which could result in breakdown or damage to vehicles and equipment. Of the 960,000 line items of the Army Supply System, about 600,000 line items are repair parts. From this it can be seen that the omission of low dollar value parts from the Center allows a large part of the problem of issuing these low dollar value items to remain.

Another action taken to alleviate the problem is reflected in a revision of AR 711-16. The revision of the regulations covering supply operations at posts, camps, and stations, will provide for the stockage of low dollar value items at installation and support units, up to one year's supply of an item when the value of issues for the item does not exceed $25.00 per year. This will make possible a large reduction in the number of requests for replenishment for such items thereby reducing the number of transactions. The revision also will require accountable officers to issue low dollar value items in bulk quantities or in standard packages wherever the items lend themselves to such issue. Improved requisitioning forms have been developed which reduce paper workload especially in the "dues out" area. The draft is now prepared for publication.

The reduction of Financial Inventory Accounting categories for ZI installations to the minimum also will constitute relief by making it possible to eliminate the posting of individual issue slips in FIA journals and making it possible to batch and post in summary total dollar values. AR 735-68, Financial Inventory Accounting for CONUS installations includes a provision permitting batch posting.

Another action taken was a test conducted at Fort Dix, New Jersey by Engineers for issuing fast moving, low dollar value items of Repairs and Utilities supply. The concept is similar to that of a Self Service Supply Center. A portion of the warehouse is screened in and supplies are placed in open bins. Only authorized personnel are permitted to enter this area where they then select the material needed to accomplish work shown on their job orders. When expendable material is recieved into the warehouse it is immediately expanded and the cost is prorated to various cost accounts based on the nature of the material or on experience percentages. At the beginning of the test only those electrical and plumbing supplies costing less than $1.00 were included in the test. Because of the success of the plan and the enthusiasm expressed by workmen, warehouse supervisors, and the post

engineer, the test was expanded to include all items of Repairs and Utilities supply, except lumber and paint, and the limit was increased from $1.00 to $3.00. By increasing the limit to $3.00 about 61% of the line items stocked were included in the test. A Department of the Army team has now evaluated and approved the test and has recommended that the Repairs and Utilities method of distributing low dollar value items be incorporated in Army Regulations for Repairs and Utilities use world-wide.

The initial success of the Repairs and Utilities test, does not mean that it can be applied in other technical services without modification. It must be remembered that Repairs and Utilities expendable supplies are obtained through local procurement and are not stock controlled centrally as is required for items of Engineer Troop Supply and items of other Technical Services. This means that the field stock control system is not operative in the Repairs and Utilities area and issue and turn in slips are therefore not required.

PART II
FIA CATEGORY STRUCTURE

Last year we reported a reduction in the manner in the number of Financial Inventory Accounting categories applicable to ZI posts, camps and stations from 697 to 325. We have continued work in this area and can report a further significant reduction this year. AR 735-63, which is the responsibility of DCSLOG, prescribed the criteria for establishing these categories basing it primarily on federal supply classifications. Each Technical Service in turn has issued appropriate regulations in the 735 series listing categories applicable to its service which are required to be reported to them. OCA's interest in the problem of FIA categories is in establishing principles and policies for an accounting system that (1) will meet DOD reporting requirements, (2) will provide DCSLOG appropriate management data, (3) will be compatible with other accounting programs such as ACMS and the Stock Fund. DCSLOG responsibility is for the actual implementation of these principles and policies.

The problem of FIA categories is basically one of supply management, but the need varies according to the level of management concerned. The question boils down to: What is needed for reports to DOD and Congress, and what is needed for management purposes within the Army? A review of FIA reporting requirements of DOD revealed that their requirements could be satisfied with 31 categories of supply. A DA letter outlining these 31 categories was issued advising the Technical Services and the field that DA planned to reduce the FIA accounting and reporting requirements of ZI posts, camps and stations to include these 31 categories only. Responses to the letter answered our second question in regard to the management needs for additional categories. The Technical Services pointed out that significant management data was buried in the 31 broad categories which combined divergent data and distorted management intelligence CONARC in turn pointed out that management information is required in greater detail as we move down through the echelons of command and that insignificant or minor data at DA level may be very important at installation or Army level. As an example we might expect Fort Bragg to look at Airborne Inventories in greater detail than other installations and Fort Knox to require more information on Armored items, and so on.

The disconcerting part of the installation picture stems from the variance in the use made of the management device provided by FIA. Some commands require too much detail while others are unable to see any value in the system and are not using any breakdowns beyond that required for reporting purposes. There seems to be no pat answer as to the number of categories to be used for management purposes at the installation level. The available categories must be related to the installation's mission and equated to the cost of collecting the data compared to the benefits derived.

As a result of the comments received from the Technical Services and CONARC the original DA letter was amended to provide for the reporting to Deparment of the Army of 51 categories effective 1 July 1958. A provision was also included to permit CONARC to authorize individual commanders to establish additional category breakouts to meet specific local supply situations provided they were kept to the absolute minimum consistent with effective inventory management.

Thus you have the story of Department of the Army's efforts to refine the FIA category structure for accounting and reporting by ZI installations. You might ask – are we finished? No – we are now working on reducing the number of categories to be reported to Department of the Army by oversea commands. A Department of the Army letter was sent to the Technical Services and all oversea commands by DCSLOG proposing a list of categories designed to answer the management and reporting requirements at Department of the Army level and asking for comments and recommendations. Replies have been received and a Department of the Army position is being coordinated with the Technical Services. It presently appears that the number of categories of oversea inventories to be reported to DCSLOG will be about 65. It is planned to disseminate this information so as to become effective 1 April 1959.

PART III
WHOLE-DOLLAR ACCOUNTING

The concept of whole-dollar accounting is designed to increase productivity (or reduce cost) in an important area of office operations, namely, in the operations of the accounting

department. It is a common sense measure designed to eliminate unnecessary work and to emphasize what is important. In the broadest sense, whole-dollar accounting means the recording of accounting entries in whole-dollars, getting rid of the decimal point and pennies wherever possible and at the earliest practical point in the accounting sequence.

Although the whole-dollar concept is not new in private industry, it is relatively so in the Army, and indeed, in the U. S. Government as a whole. The Army has introduced the concept in the industrial fund area. On 1 July 1958, Fort Detrick, a chemical research and development type installation, adopted whole-dollar accounting methods and on 1 August 1958, the Signal Corps' Army Pictorial Center followed suit. All other industrially funded activities will be accounting by whole-dollar methods by the close of this calendar year.

It is well to point out that there is a difference between whole-dollar accounting and whole-dollar reporting. Whole-dollar reporting involves nothing more than delecting pennies from the reports. The accounts behind such reports are not affected. The advantages of whole-dollar reporting are obvious - the reports are easier to read and comprehend, are more concise, and consequently the same information (without pennies) can be shown in less space, or conversely, additional information may be included on the same size report - plus the saving due to typing, proofing, etc. Whole-dollar reporting is much more commonly used than whole-dollar accounting. It was found, for example, in a recent study made by the Controllers Institute of America covering some 420 companies, that 87% of these report in whole dollars. In the Army, whole-dollar reporting or rounding to even higher figures (100's or 1000's) is utilized for various financial reports, such as -

The Cost and Performance Summary.
Stock Fund Financial Statements.
Industrial Fund Financial Statements.

Whole-dollar accounting is not a new concept in industrial circles; nor for that matter is its application. It is generally recognized that the whole-dollar accounting concept was developed and first applied in this country in 1927 when Bethlehem Steel introduced it in its accounting operations. Since that time, an impressive list of recognized and diversified industrial and commercial firms have adopted and incorporated the relatively few, simple techniques to their own operations. Such a list would include, for example, Colgate-Palmolive Company, Canadian Oil Companies, Lmtd., Pan American World Airways, Inc., Time, Inc., Employers Mutual Liability Insurance Company of Wisconsin, Irving Trust Company, and many more.

The formula for the elimination of pennies and converson to whole-dollars most commonly encountered in industry is:

Amounts of 51 cents and over are rounded upward.
Amounts of 49 cents and under are dropped.
Amounts of 50 cents exactly are rounded to nearest even dollar.

For example, $3.50 becomes $4.00; $2.50 becomes $2.00

In order to keep the books in balance, whenever one-half of an accounting entry is recorded in whole-dollars and the other half is required to be recorded to the penny, a penny adjustment or elimination account is used to record the difference. This operation is illustrated in the schematic Chart A.

CHART

The illustrated labor distribution cost of $85.50 is recorded as $86.00 when charged to work in process with a 50 cents credit entered in the penny elimination account. In the case of materials purchased for $16.50 this amount is recorded in accounts payable but when carried to inventory is entered as $16.00 with a 50 cents debit in the penny elimination account. When travel performed has been vouchered for payment in the amount of $95.51, it is charged to work-in-process in the amount $96.00 with the difference of 49 cents credited to penny elimination account. From this point on through the accounting process, all entries are in whole-dollars.

Whole-dollar accounting, through the use of this formula, can usually be effectively applied to those areas that do not reflect amounts due to or from outsiders or other transactions with outsiders, such as -

Cost and expense accounts.
Stores and inventory records.
Real property and capital equipment records.
Labor distribution and analysis.
Financial statistics.

The kinds of accounts which ordinarily are not adaptable to whole-dollar accounting are:

The cash accounts, receipts and disbursements.
Accounts payable.
Accounts receivable.
Any other accounts, or entries specifically recording transactions with outsiders.

Summarized advantage of whole-dollar accounting are:

1. Reduction in physical work.
2. Increased productivity of accounting and related operations.
3. Reduction in the incidence of errors.

4. Improved and more effective statements and reports.
5. More effective use of existing report and record forms.

Industrial tests have shown that, before rounding, the number most commonly entered or posted in accounting operations consists of five digits - plus the decimal point. Theoretically, where applied, whole-dollar accounting can reduce the physical work of such recording by 40 to 50 per cent.

The net reduction realized will be somewhat less than the 40 or 50 per cent because of adjusting entries or additional motion-time factors involved in the rounding, posting to penny-elimination account or using batch accumulation and control techniques. The over-all net work reduction yield in accounting, may range from 10 to 25 or 30 per cent in the bookkeeping phase. One case in point, the F&R Lazarus Company makes the statement, "It is estimated that whole-dollar accounting has eliminated at least 100,000 digits a month from processing and reprocessing operations in the Sales Audit Department. * * * In the Statistical Department over 250,000 characters per month have been eliminated from processing and approximately 16,000 per month in Payroll."

A need for analysis and appraisal is now indicated, and being undertaken, relative to several of the Army Industrial Fund installations. At the Quartermaster Corps, Utah General Depot for example, it is reported that implementation difficulties have been experienced "due to EAM limitations." While the reason given does not appear plausable, because successful implementations have been made in operations ranging from the no mechanization at all, to the ADPS type of mechanization, it does emphasize the need for qualified and unbiased review and appraisal.

The Army has applied whole-dollar accounting principles first to industrial and commercial-type activities. This does not mean, however, that these are the only areas which can effectively apply these principles, it means merely that this is where we have begun.

The Office of the Comptroller of the Army is constantly exploring for new methods to reduce paperwork in issuing and accounting for supplies. If any of you have any ideas on this subject, write them up and send them in -- we will appreciate any and all suggestions.

CHART A

DESCRIPTION	ACCOUNTS					
	LABOR CLEARING	MATERIALS INVENTORY	WORK-IN PROCESS	ACCOUNTS PAYABLE	PENNY ELIMINATION	
	CREDIT	DEBIT	DEBIT	CREDIT	DR	CR
LABOR	85.50		86.00			.50
MATERIAL		16.00		16.50	.50	
TRAVEL			96.00	95.51		.49

THE NAVY MILITARY PAY AND ALLOWANCE ERROR DETECTION AND REDUCTION PROGRAM

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The Budget and Accounting Act of 1950 provided that agencies establish effective internal controls over the expenditure of funds. The Comptroller of the Navy, in formal recognition of his responsibility in this regard, established, in October 1955, the Military Pay and Allowances Error Detection and Reduction Program for the express purpose of reducing and maintaining at a minimum errors in payments of military pay, allowances and travel, and for detecting and correcting such errors as expeditiously as possible.

APPROACH TO THE PROBLEM

There are two phases to the program – detection and reduction. Error detection was already being accomplished through a number of administrative reviews, inspections, and examinations and through the audits of the General Accounting Office. Error reduction was also being performed in an informal manner as a subsidiary of the error detection programs; that is, as errors were discovered and actions were taken in the field to correct the errors through pay record adjustment, there ensued an awareness of errors and consequent efforts by all echelons of command to reduce such errors in the future.

What, then, remained to be done? The first task was to review the detection operations and to improve, refine, strenghten and revise the detection procedures. The second task was to formalize a plan of error reduction, accumulating error data and controlling corrective actions.

ERROR DETECTION

A review of detection operations revealed that, while other error detection sources discovered accounting, internal function, and management faults, the administrative and on-site examinations conducted by the Navy Regional Accounts Offices, the administrative examinations of the Navy Finance Center and the audits of military pay by the General Accounting Office were inclined towards the detection of specific monetary errors. A number of measures were taken to improve the effectiveness of the examinations performed by the Navy and to increase the utility of examination results. Among these measures were:

1. Refinement of the coding system for error classification to provide information as to error responsibility and source of error discovery.

2. Installation of a scientific sampling procedure on a limited basis.

3. Periodic reports to the managers of the administrative examinations showing the comparative performance of the various examination teams.

4. Recommendations as to areas in which examination emphasis should be placed.

It was the error detection operations of the audit program of the General Accounting Office that, in the past, discovered most of the military pay and allowance errors, but there has been increasing awareness of the Navy's basic responsibility for detecting its own errors. Since the Navy has increased its self-examination efforts there has been a notable rise in Navy detected errors with a corresponding decrease in errors discovered by the General Accounting Office. This influence has been particularly apparent where the Navy has concentrated examination and administrative forces on one particular problem area.

ERROR REDUCTION

No sooner was the subject of error reduction taken up when it became evident we were really talking about error prevention. As previously stated, error reduction was a function in fact, but it lacked formalization, coordination and control. The comptroller directive establishing the program gave it formality and provided the authority for coordination and control.

One of the basic requirements for reducing or preventing errors is knowledge concerning the errors. This requirement was met through the establishment of a system for reporting and accumulating error statistics on examination and audit findings. This system involves the preparation of an EAM card for each error discovered with periodic listings of errors in predetermined arrangements designed to permit analysis with the minimum of manual handling. Utilization of error classification codes results in a multitude of data which when analyzed provides a comprehensive picture of: causes of error; sources of error; sources of error discovery; responsibility of error; volume of error; percentages of error; trends of error; etc. The fact that the system for error classification has some weaknesses is not denied, but it furnishes sufficient information for interpretation and for further investigation as to specific details. This compilation of statistics serves two general purposes. One is the basis of reports such as the semi-annual report of the Navy Error Detection and Reduction Program for Military Pay and Allowances which contains a series of graphs and

tables intended to inform the various command echelons of the problem areas requiring administrative attention in areas within their jurisdiction. Another is the basis for studies and staff projects. Where, in the examination and analysis of statistics, an item of pay shows an upward error trend, the results of the analysis form a basis for a detailed analysis of procedures, laws and instructions, with a complete study of all matters pertaining to that item of pay. Study recommendations result in: revisions to instructions for clarification purposes; changes in procedures for improvement or control purposes; proposals for legislation for justification or simplification purposes; and publicity in the Navy Disbursing Digest and other media.

Naturally error reduction and prevention actions are not confined to those generated by the technical administrators. In fact, much success has been realized through the direct assistance of examiners at the activity level and the responsiveness of activity personnel to examination recommendations has also played a considerable part in effecting immediate procedural and control improvements.

A REVIEW OF THE RECORD

Three full years have elapsed since the establishment of the Navy Error Detection and Reduction Program by the Comptroller of the Navy. There is record of specific item performance being improved by a concentration of examinations, publicity, and other action. There is also record of the Navy detecting more of its own errors, but the measurement of overall performance in making accurate payments is another matter. We could compare shore activity errors for different periods on the basis of the scientific sampling examination, but otherwise too many variables must be considered; i.e., audit emphasis, funds, personnel; error introducing factors such as new legislation, regulations, system changes; and changes in payment workload occasioned by shifts in personnel or operation.

Perhaps one indication of Navy efficiency in detecting and preventing errors is the audit of the General Accounting Office. Of course, we have all of the other variables present here plus the "period of audit" element, but the fact that it is performed after the completion of all administrative examinations and applied preventive measures does indicate, in some degree over a long span of time, the errors remaining in the system. So, if we must measure, let us look at the "before" and "after" results of the General Accounting Office audit. In fiscal year 1955 this audit reported 24,205 errors valued at $2,019,106 while in fiscal year 1958 the respective figures were 12,807 for $925,981. This is certainly a desirable trend, but the attainment of definite improvements in specific problem areas is a more accurate indicator of the effectiveness of the program.

PLANNING AHEAD

One specific need is predominant in considering the future of the program-the expansion of scientific sampling. As can be surmised from previous discussion, the program is limited in its ability to compare activities and groups of activities; examiners and teams of examiners; volumes of errors over short and long periods; and error detection and reduction action results on individual items and in the entire military pay area. The program is also limited as to data suitable for projection for the total system and for prognostication. Aside from efforts to improve all phases of the program, the expansion of the scientific sampling concept will be the one major and specific goal.

This presentation may have created the impression that the program relies on error statistics alone. While it is true that this type of data reporting can provide a large volume of miscellaneous and specific data, there are other indications that problems do exist and that problems will exist. The analysis of statistics is coordinated with the continuous analysis of correspondence, instructions, procedures, operations, laws, proposed legislation, etc., to assemble all possible data useful in maintaining comptroller responsibility for technical financial management of the Navy military pay system.

HUMAN RELATIONS APPLIED TO AIR FORCE COMPTROLLERSHIP

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Chapter V
HELPING THE STAFF AND THE OPERATORS

Section Three of Brigadier General Scheidecker's article appeared in The December Issue of "The Armed Forces Comptroller."

In the preceding chapters, we discussed the Comptroller as a helper from three separate standpoints. These were: (1) to himself, (2) to the Commander, and (3) to the other members of the Comptroller team. In this chapter, we will view him helping the balance of the people in the command — those in the staff and the operating echelons.

While examining this relationship, let us keep the principle of mutual service in mind. It is particularly important in this chapter because of the large potential of people the Comptroller can help; hence, it will underlie everything discussed.

Fostering Budgetary Success

So much has been written and said about the importance of budget planning, administration, and analysis that there is no necessity for retelling the story here. Briefly, we realize that good relations must be preserved between the military services and Congressional committees. Beyond legal limitations we know that each military service is morally obligated to both Congress and the people to spend its appropriated money wisely. Therefore, all Comptrollers should do their parts in making their budgets effective tools of management so that the dollars made available by Congress will be expended prudently and fully.

We are also well acquainted with the harrowing birth pains which commands suffer in preparing and justifying their financial plans. Unfortunately, much of this is beyond military service control. Complicated procedures for estimating and administering the budget are part of a governmental system enshrouded in red tape. In such an environment, there can be no panacea for all budgeting ills. But one human aspect can be suggested for reflective thinking.

Several years ago, an organization of a major air command determined to do something about its budgeting troubles. Never was enough money allotted. Authorizations fluctuated over as well as during fiscal years, and considerable time and effort were spent each year to obtain higher headquarters' approval for program adjustments. The Comptroller sought casual factors.

As the first step, he decided to talk to a person in authority in some governmental agency that was successful at budgeting. He hoped that he would be informed of principles used by that agency which would be of practical value to his organization. After a few false starts, he chose to question ABCD officials. He had seen ABCD's latest "open house." While there, he was greatly impressed by the way ABCD "reported" to many of the nation's leading scientific, industrial, and military leaders. Most important, he heard that ABCD was consistently able at budgeting. Later, at ABCD National Headquarters, Washington, D.C., he was told the following story by ABCD's Executive Secretary.

Back in the 1920's, ABCD's top management was seriously concerned over the future of ABCD. The organization was in dire financial straits due to its inability to get sufficient funds from Congress each year. Convinced that there was a real place for ABCD in the national air scheme, top management carefully considered the problem. It was agreed that ABCD's financial troubles stemmed from the fact that the organization had not been accepted by those who controlled the purse strings. In short, the latter were reluctant to provide funds to an organization in which they had little confidence.

Therefore, ABCD's top management established the objective of building confidence in the minds of all who were associated with ABCD. It was recognized that achievement of this objective could not be realized within a few years — it would take many years of hard, consistent effort.

A program was soon embarked upon, dedicated to effective performance and sound public relations. It was successful. Within a few years, ABCD's financial health improved. Gradually, over the following years, ABCD has attained even greater acceptance. Admittedly, ABCD never receives all the money it would like to have but enough is provided to carry on an important mission in line with expanding demands.

Armed with this knowledge, the Comptroller conferred with his Commander. He recommended that the organization's budgeting procedures be changed to foster greater esteem in the minds of higher headquarters personnel. The Commander approved. As the initial step, it was decided to develop a new, more businesslike programming procedure, to include describing the organization's money requirements in such a way that reviewing authorities would be able to read and understand them despite their inherent complexity.

The new programming procedure was eventually completed by an ad hoc committee composed of men representing the main staff

agencies, the operating organizations, and chairmanned by a Comptroller management analyst. Later the procedure was approved by higher headquarters, placed into effect thruout the command.

For the purpose of this study, it is unnecessary to delve into the details of the new programming procedure. What is important is that the Comptroller rightly uncovered the main causal factor for the organization's budget ills. Higher headquarters did not have confidence in what they received from below. The total program was not divided into logical components, there was little continuity with preceding years' budgets, the entire estimate was a mass of figures lacking internal consistency, hence it was difficult for reviewers to understand and accept it.

We must recognize that general acceptance by higher headquarters for an organization's management of itself cannot be gained by curing the budgeting problem alone. The latter was only one management improvement among a potential of many. But it was a well diagnosed step in the right direction. The Comptroller sought and found the underlying difficulty. He did not allow himself to be blinded by the intensity of the immediate troubles. Much hard work was still ahead to raise the level of the organization's administrative competency and to do it in such a way that the improvements would be noted and accepted by people in authority outside the organization.

Making a Study

An important element in the situation just described was the manner by which the Comptroller carried out the Commander's decision that programming be improved. One approach might have been to appoint a team from within the Comptroller organization. Another might have been to hire an outside consultant. The third alternative, the one adopted, was to organize a composite team made up of people who would have to live with the new system.

In considering the first, the Comptroller knew that his people could produce a satisfactory solution. However, he did not want to turn out a product that the community would see as a Comptroller creation.

The second alternative had considerable merit. If an outsider came in, he would provide additional manpower to an organization that was short of this resource. And this specialist would have no other tasks except to concentrate on this one problem. With these advantages as a backdrop, the Comptroller viewed the disadvantages.

First, the outside specialist would arrive cold. Time and effort would be required of both staff and operating personnel to orient him into the problem. Then, when he left, he would take with him all the valuable experience and knowledge gained while solving the problem. Sure, the organization would have written evidence of his work but that is incomplete without the person to interpret and apply its real meaning. There is no substitute for someone who has lived thruout the problem-solving process. Finally, authority to hire a consultant would have to be granted by a higher headquarters whose reaction was unpredictable.

The third alternative was the most promising. In changing something as fundamental as programming, the Comptroller realized that virtually the entire organization would be affected. Therefore, he concluded that representatives of all the people who would have to live with the new system should actively participate in its development. He saw two major advantages in this. First, many aspects of the problem would be considered which otherwise might be overlooked. The people who faced the realities of programming daily could present these aspects at the outset of the planning phase. They would not be spasmodically uncovered later during coordination and application. Second, greater ultimate acceptance and cooperation would be received if the participating staff and operating personnel recognized the new system as their handiwork, informed their bosses of its merits.

So, in selecting the third alternative, the Comptroller gave due cognizance to the human aspects of his problem. He refrained from being forced into action by technical factors alone.

Here is another situation worth mentioning. The Commander, the staff, and the operators were convinced that a particular system was obsolete and should be revised. When asked by the Commander for a plan to carry out the revision, the Comptroller suggested, in part, that both staff and operating personnel should actively participate in developing the new system. But the Commander wouldn't approve the suggestion. In his opinion, development was solely a staff responsibility, calling the operators in later for coordination and application. This approach was geared to the formal, technical situation. Since it failed to recognize the human aspects that should be considered while the new system was being developed, it failed in practice. Much time and effort were required later to replace staff theory with operating realities.

Obviously, the operators should not be drawn into the development phase of every administrative action pertaining to them. In so doing, they would have scant time left to accomplish their primary functions. But their active participation is needed during development of major administrative functions. In short, they should have a hand in preparing the most important meals. They should not have the meal abruptly placed in front of them then be asked to "taste it and let us know what you think."

A natural response here might be, "Is it really worth the extra time and effort to involve so many people at the outset?" Without such advance collaboration, the problem-solving process will usually either take longer or it will fail. The additional time at the beginning will pay

rich dividends later--on the present study as well as in terms of cooperation and acceptance on later ones.

One Comptroller told of a technique he applied successfully. While working on a new procedure, he looked for ways to create a feeling of favorable anticipation in the minds of the staff and operating people who later would have to pass judgment on his proposal. In discussions with staff and operating associates on other problems, questions would arise that would be relatively difficult to answer. If he recognized that any of them could be answered by the new procedure, he would say so. After a series of such remarks, over a period of time, his listeners automatically began to look forward to the new proposal. Why? Because they were anticipating something that would help them get their jobs done. In a subtle manner, the Comptroller was responding to a normal human query when new conditions are in the making. He was favorably answering each individual's question of "What does this mean to me?"

Thus far, we have discussed certain human factors involved in the development stage of problem solving. At this point, let us turn to the implementation stage, after a study has been approved by the Commander. We will do so recognizing the importance of Comptroller attitude and behavior during these two stages.

There is no doubt that one of the best ways to win acquiescence for a new way of doing something is to win it before actual installation. Much of this is taken care of by practicing "participation," as discussed earlier. Naturally, if people have helped to develop the new scheme and recognize parts of it as their own ideas, they will be eager to serve as missionaries to promote successful execution.

Even if the new scheme results from dedicated joint effort, it is possible that bugs will develop after implementation. Perhaps the staff and operating members of the study group are really too far removed from practical realities. They don't have to fill out the forms, draw the supplies, buy the materials, or work closely with the people who do. Somehow, their "theoretical" thinking must be adjusted to the real facts of life.

Two excellent techniques can be applied. A pilot run can be conducted under realistic conditions. Or time can be profitably spent conversing with people who are representative of those who will have to work with the new procedure. In most cases, these people are so close to the job they will be able to point out kinks quickly.

An essential part of this interviewing process is the behavior and attitude of the Comptroller (or his representative). First, he should go to the scene of the action, not ask the other person to visit his office. Psychologically, this creates a favorable impression in the mind of the other party. And if exhibits, such as forms or reports are needed for explanation, or an actual operation has to be witnessed, it can be done on-the-spot without undue delay. Next, the Comptroller should demonstrate an informative, solicitous attitude. After briefly informing the other person about the nature of the problem, he should eagerly seek advice as to what should be done for improvement. He should encourage "why it won't work" responses.

In most cases, this is not the place to adopt a defensive attitude. That comes later when the selling effort is made to higher level people in authority. And if the Comptroller has done well in locating bugs and in understanding operating details at the working level, he will have a definite advantage over his staff cohorts who are not acquainted with detailed realities.

The reader may recall that cost reporting was given great emphasis shortly after World War II ended. As a result, eager to comply, cost reporting was established by "papal decree" in one major command. In the rush to establish a cost system, the Comptroller either didn't think to consult with the operating people during the planning phase, or he didn't care to lose the time required for such a procedure.

Haste made waste. In a few months, it became apparent that the cost data generated by the system: (1) were invalid, (2) were not the most significant to depict operations, and (3) were being compared with unrealiztic standards. As a result, the staff and the operating people in the lower echelons lost a large measure of faith in the command Comptroller organization in addition to cost accounting in general.

Faced by this unhappy performance, the command cost accounting personnel decided to undertake corrective measures. Unfortunately, they still hadn't learned their lesson. They attributed the situation to "jumping the gun," or not taking enough time to plan their course of action at the outset. That part of their estimate was correct. Wrongly, however, they still felt that an improved system could be devised by them from their high-level vantage point. No real sympathy and little attention were given the operators who requested an opportunity to help fabricate a system that would provide them with the data they needed as well as that required by higher levels. Persistent appeals by the lower echelons fell on deaf ears.

In time, the cost system was again revised. However, it too failed to survive. This latest unilateral action by command headquarters: (1) stirred up doubts and tensions, (2) failed to provide the operators with the data they needed, (3) prevented acceptance, and (4) poured too many operating details into the major command headquarters.

Shortly thereafter, the command cost accountants were finally ready to cooperate and collaborate. Over the next few months, a revised system was developed jointly as originally proposed by the operators. After a pilot run, the new system was installed. Only a few kinks had to be ironed out before the system was paying its way for all personnel and echelons concerned. From

this example, we can recognize the importance of real participation at all levels if understanding, effective control, efficient operation, and true acceptance are to result.

Making Changes

One resentment toward Comptrollers is their close association with change. This condition is aggravated if too many changes are introduced at a rate faster than people can adapt themselves to them. Here is an interesting human situation. On the one hand, the Comptroller is pressured by the Commander to make the wheels turn more efficiently wherever possible. Readily recognizable results are wanted by the latter. Changes are necessitated. On the other hand, human beings do not like to be reshuffled or rearranged.

The Comptroller should understand the nature of these sentiments and act in tune with them. The art of good timing should be practiced so that the change will be introduced at the correct psychological moment. And the actual change, as far as practicable, should be part of an overall plan to improve the particular area concerned. As such, the change should be consistent with both past changes and those expected to follow. Finally, as we discussed earlier, the new procedure should solve the real issue, not just a symptom.

Issuing Instructions

An important facet of the change-making process is issuing instructions announcing the change.

Basically, before issuing an instruction, the Comptroller should be sure that it can reasonably be carried out. In brief, the proposed instruction should answer the question of why, what, how, when, where, and by whom. The "why" is of special significance because of its human implications. Too often, it is left out. Such an omission can cause friction losses which will lower performance below the standard expected by the Comptroller. For example, most people have pride in their work. If a fiscal clerk is directed to change his manner of record keeping without being told why, he may drag his feet, Without knowing "why," he is unable to evaluate the new method objectively. Hence, his first reaction will probably be one of resentment. But if told the reason for the change, he is given the appraisal tool he needs. Then, if he approves of the change, his pride will go up because he can get his job done even better. If he still doesn't accept it, he is equipped to discuss the situation objectively with his supervisor.

In addition to containing the elements mentioned above, instructions must be clearly expressed in the language of the recipient. Excluded should be Comptroller "Gobbledegook" that has little meaning to people outside the Comptroller organization. This will save time and effort expended by people trying to find out what is really meant.

An excellent way to test the adequacy and clarity of written instructions is to try them on for size with a person typical of those who will be expected to comply with them. If time permits, several such individuals should be contacted. Adjustments can be made before the instructions are formally issued.

Standards of Performance

One of the most active parts played by the Comptroller in the management process is in setting standards of performance. This function is a necessity in the control (or evaluation) work performed by the Comptroller.

In designing standards, it would be well for the Comptroller to comply with three basic considerations. First, each standard should agree with the command's work objectives. Obviously, there is no point in comparing performance with a standard that does not harmonize with these objectives. Second, the standards should be appropriate to the working level, understood by the working people, and considered fair by them. If not, the workers will have little incentive to bring actual operations in line with expectations. Third, the workers should be permitted to participate in the act of setting standards which will affect them. By so doing, the standards will probably be much more realistic. In addition, they will include those factors which the workers believe to be significant. If these three considerations are abided by, it is reasonable to expect that people will strive to line up their performance with the standards.

Regardless of how well standards have been established, the Comptroller should be tolerant when comparing performance with them. He should remember that figure comparisons by themselves are only material evidence. Therefore, management action should not be guided only by the picture portrayed by them. Human aspects must also be given consideration. Accordingly, in analyzing deviations from standards, the real meaning and causes must be determined, based on all pertinent factors, material plus human.

Standards should also be as dynamic as their environment. As common objectives are abandoned, modified, or added, so should standards be dropped, revised, or developed. To keep unrealistic standards active is to foster suspicion, frustration, and a feeling of stagnancy.

Statistical Reporting

The same fundamental concepts apply in statistical reporting, another major Comptroller function. Like other Comptroller functions, it too is designed to help others get their jobs done.

To kindle our thinking, let's look at a few examples in this area.

First, an overseas command was in imminent danger of having some of its motor vehicles withdrawn by higher headquarters because monthly reports seemed to show insufficient use. At the Chief of Staff's request, the Comptroller made a detailed study of the circumstances. His

findings revealed many cases of erroneous reporting by lower levels, primarily designed to reflect a high rate of motor vehicles in commission. The circumstances were explained to the subordinate commanders who took corrective action. In a short time, valid data were reported, depicting a higher use than before. As a result, higher headquarters refrained from withdrawing any vehicles. A few months later, the command actually received additional vehicles. Needless to say, Comptroller acceptance rose considerably as a result of this demonstration of helpfulness.

In a ZI situation, the Comptroller sensed the need for a thoro housecleaning of the reporting system. New on the job, he had learned that the system had not been re-engineered effectively for as long as anyone could recall. An unobtrusive test survey proved to him that the command was overburdened by overlapping and duplicating reports.

The Comptroller knew that the command had been surveyed on a host of subjects. He sensed that mention of another survey, unless handled properly, would be unfavorably received. He therefore presented the problem to the Commander, recommending that a survey be conducted, that the Commander personally introduce it, and that special emphasis be placed on the fact that the survey was designed to help everybody. The Commander approved this proposal. When the results of the survey were tabulated, the Comptroller's suspicions were confirmed. The reporting burden was clearly excessive. All resentment vanished in the light of the practical good that was ahead. Of particular interest was the graphic way by which the Comptroller depicted the findings. For example, he told the staff that if piled one on top of another (all copies), the total number of reports per year would reach to twice the height of the Empire State Building. And if laid end-to-end, these same reports would stretch from New York to Miami. There was much more of a formal nature to his findings but the above technique served well to catch the eyes and minds of the people submitting reports.

These two examples have a rosy hue. Now, let's examine two cases in which Comptroller performance was apparently unmindful of the human aspects.

In one command, the Comptroller initiated a campaign to stamp out excessive delayed morning report entries. For every tardy entry, a separate letter of explanation was required. And during one month, over two hundred such letters had to be prepared within the command. In the opinion of one field Comptroller, the cost of this extra work was far beyond the value received. All the delayed entries could have been explained on one letter per subordinate organization. As a result of this uneconomical action, the lower echelon Comptrollers lost some confidence in those at the top.

In another instance, a Comptroller felt a strong need to publish a monthly statistical summary. He did have some data coming into his organization which warranted inclusion in such a publication but there wasn't enough to produce a booklet of "impressive" size. Therefore, he asked the field for extra reports. When the statistical report was received by the subordinate Comptrollers, it was found to contain much data that were out of date and/or of little practical advantage. This situation also fostered resentment since personnel in the field were required to perform unnecessary work. Consequently, the command Comptroller lost some acceptance.

The human repercussions to these ill-planned actions are plainly evident. If analyzed thoroughly at the outset, they would not have survived beyond the idea stage if both the technical and human factors had been properly equated. Not only was operational effectiveness lost but the higher level Comptrollers had boxed themselves in for less willing cooperation from the field in the future.

At this point, it would be prudent to focus on six basic questions which should be asked when dealing with statistics. They are:

a. Who are the statistics for? Are they mission oriented?

b. Will they be understood by the people who receive them?

c. Are they, or can they be, circulated in time to influence the action to which they relate?

d. What actual action (if any) will be taken as a result of receiving them, and by whom?

e. What do they cost, in time spent both at the preparing end and the receiving end?

f. How do the costs compare with the gains in more effective management?

Obviously, if these questions had been objectively answered, the two preceding examples would not have occurred.

Earlier in this chapter, we discussed the importance of the "why" factor in giving instructions. It applies as well in reporting. A person who does not know the purpose of the data he has asked to forward will often omit essential facts. Further, if he doesn't appreciate the importance of the data, he is apt to give the reporting action only casual attention.

A little soul-searching is good for everyone. Comptrollers themselves should not become so involved in supervising the overall reports control system that they fail to control their own reports. Safeguards should be established in the Comptroller organization itself to prevent input and output from attaining ponderous proportions. Useless data should not be collected and presented. As Team Captain for reports control, the Comptroller's attitude and behavior should be exemplary. By exercising personal acumen, the Comptroller can prevent his people from gathering statistics for statistic's sake, collecting and presenting only those data which can help the Commander, the staff, and the operators carry out their important responsibilities.

Group Discussion

Comptrollers should look on group discussion as one of the most fertile fields in which to carry out their basic calling – helping others. They can help others think effectively; concurrently, can gain greater acceptance for themselves.

At these discussions, some staff officers often display bias, think subjectively, or fail to consider the impact their current thinking will have on the long-range future. Some of them are unable to segregate the important from the unimportant. Others think in terms of curing symptons in lieu of causes. If adequately equipped to carry out the basic demands of his job, the Comptroller should be able to perform a prime moderating influence. By example, he should point the way to objective solutions based on facts which correctly treat causal factors.

Quite obviously, in providing this service, the Comptroller must be careful of his behavior and attitude. He definitely should not fall victim to bad case of "I" trouble. His oral thinking would be cloaked in modesty and cooperation, acting in full sympathy with the problem. He should not only realistically understand the primary problems of the other conferees but their personal capabilities and limitations as well. Some he will find competent to serve in such groups. Others will invariably "muddy the waters," or "fail to see the woods for the trees." Somehow, they habitually expand, ramify, complicate, and confuse the facts.

The resultant protracted wrangling off course can be short lived by a Comptroller skilled at boiling matters down to their simplest form. The integrating, condensing, summarizing, and simplifying practiced in his formal reports should be evident here too. Never should he be lost in a sea of detail. This capability for clear thinking expressed in the language of the other conferees, cannot fail to cause his associates to view the Comptroller as an advisor and counselor, not as a policeman or an eagle-eyed critic of the way other people carry out their responsibilities.

Visual Aids

Here is an area in which Comptrollers can expand their helpfulness. In mind is the need to broaden the scope of the service rendered. Perhaps this lack of width stems from Comptroller charters not going far enough in spelling out visual aid responsibilities. In substance, they often state that Comptrollers will provide a central graphic service, to include the preparation of charts, graphs, and other visual aids for staff use. The point is that the wording should be expanded to "preparation and use of," rather than just "preparation of."

Visual aids are frequently used in the various headquarters to which Comptrollers are assigned. Unfortunately, however, in only a few instances are they used to maximum advantage. To illustrate, here are a few common errors.

a. The charts and their lettering are too small for the entire audience to read. (Available are handy tables that relate distance to letter sizes for normal eyesight.)

b. Too many separate subjects are cluttered on one chart. (The rule is one subject per chart; withdrawing the chart the instant the subject has been covered.)

c. Too much information is offered on one chart. (Only the minimum should be presented.)

d. Charts are garishly prepared. (Harmonious colors should be selected to stimulate interest.)

e. Titles are buried in the rest of the material and are too long. (They should stand out distinctly and be of minimum length.)

f. Many visual aids are too costly. (Economy should be exercised in selecting graphic materials and techniques, for example, speedball vs leroy vs crayon.)

These weaknesses apply not only in the way visual aids are prepared but also in the way they are used. By words in their charters, Comptrollers are directed to provide preparation service. Lacking is the provision of professional advice in using visual aids. It seems logical that these two homogeneous functions should be grouped under the Comptroller since he is already responsible for one.

Several interesting human aspects are involved in the assignment and application of these responsibilities. Aside from a few purely informational purposes, most people use visual aids to sell ideas. And it is human reality that many people don't know how to design or use this tool effectively. Hence, at the formal presentation, their ideas are not fully understood or appreciated.

For example, many staff officers are poor salesmen. To make matters worse, because of their technical nature, the ideas of these staff officers are inherently difficult to describe, especially to laymen. Therefore, unless keen imagination and salesmanship are part of the input, the resultant visual aid is apt to be unconvincing, weakening the total presentation. And when a decision is reached, the idea is likely to fall by the wayside. Such failure can be a bitter disappointment for the staff officer who knows that he is right technically. He may also lose faith in the judgment of his superiors.

Comptrollers can be of trememdous help by pointing out to staff officers how their technical ideas can be effectively presented, graphically and orally. This service may be laying out a series of flip-over charts that are particularly advantageous when preparation time is of the essence. Or it may be in suggesting non-technical words that the audience will understand. It all adds up to assisting in delivering a presentation that the audience will be able to see, hear, and understand; will accept on the basis of logic and acceptability; will want to tell their associates about; will want to act on.

Other Human Aspects

Thus far in this chapter, we have examined, in varying detail, some of the broader facets of Comptroller relations with the staff and the men on the firing line. Now, to conclude this chapter, let us consider the human features of a number of assorted relationships. Looked at individually, these relationships may not appear to be too significant. But taken as a whole, the Comptroller's success or failure in abiding by them can go far in determining the degree of the service he gives others.

In all his many activities, the Comptroller should take pains to invite participation of all those who have a right to take part. This he must do despite the unceasing pressure forced on him while handling a wide variety of complex matters. Such an omission may result in technical harm, as when steps have to be retraced later. From the human standpoint, people want a place in the sun. They do not like to be left out.

Inviting everyone is especially applicable when important staff coordination results. If someone is left out, the headquarters can be embarrassed by having one staff officer make decisions not in harmony with what the rest of the staff is doing.

Often, Comptrollers are visited by representatives from higher or lower echelons. While the interests of these visitors may be primarily of Comptroller concern, they frequently bring current news of general interest to others. On such occasions, Comptrollers can cement formal and informal ties by inviting other members of the staff to confer with the visitors.

There are times when a Comptroller may be dissatisfied with the services provided by a staff or operating organization. In such situations, an effort should be made to discuss the matter informally and man-to-man with the other party concerned. Before taking this step, however, the Comptroller should make certain: (1) that his own skirts are clean and (2) that what he expects of the other organization lies within its charter.

Mature people who want to cooperate never have trouble adjusting their differences. At times, tho, the Comptroller will run into a strongly opinionated person who won't even discuss the matter. Or even if he does talk it over, he won't change his mind. At that time, the Comptroller may consider visiting the man's superior. But in taking this step, the Comptroller must evaluate the cost versus the gain. If proven wrong, will the other person remember it for the remainder of his association with the Comptroller? Is the matter really important enough to go to the man's superior? Will time automatically correct the difficulty that seems so pressing now?

On the other hand, what does the Comptroller do if a complaint is received by him about his organization? As its leader, he is expected to be in control of his organization. He is credited for successes and is debited for his team's failures. Therefore, he should accept the brickbat and not "pass the buck" down. Later on, the situation can be discussed with the Comptroller employee concerned, in private, man to man.

Likewise, when praise is received, the Comptroller should pass it on promptly to the individual (s) who really got the job done. And sincere appreciation should be expressed in public, in the company not only of the individual but with some of his closest associates. The stimulating effects of this kind of recognition help develop a cooperative, enthusiastic team.

Comptrollers should be "idea" men. They should never be satisfied with what exists but should constantly think in terms of what should be. As these ideas crop up, Comptrollers need not always offer them as their own creations. Staff associates and operators also like to see their ideas adopted. Therefore, keeping in mind that he is aiming for a climate of confidence, harmony, and mutual service, the Comptroller should not hesitate to let others think that some of his ideas are theirs. Secretly, he can take pride in really having conceived of the ideas. The other parties will remember such relations as being helpful and will tend to cooperate in the future.

At all times, Comptrollers should stay in their own backyards. They should be careful not to trespass on other people's charters. Such "muscling in" is certain to cause resentment, often bitter and lasting. Over the long pull, this ill feeling is detrimental to accomplishing the command technical mission. Sometimes, it also acts as a cancer in the body politic, insidiously spreading via informal channels.

The Comptroller should not collect statistics as a matter of habit without putting them to work. But even with this attitude there still may be certain kinds of data which people don't seem to have use for. Before surgery, the Comptroller should consider advertising his statistics to the rest of the command. This should be done on a regular, recurring basis, perhaps twice a year. In so doing, he has at the least demonstrated a desire to be helpful. Further, whatever customers are uncovered will be a blessing in the eyes of his people. Basically, his people would like to be assured that their efforts are not being expended in vain. Extra, unexpected customers will add to their feeling of purposeness.

Throughout this chapter, we have examined the Comptroller's efforts to help other staff people and operators get their jobs done. When these efforts are added to those discussed in the preceding chapters, we should gather the impression that the Comptroller is in business to help many people all around him.

But to stop there would be to cut an interesting impression prematurely short. Applying the principle of mutual service, we should see that in serving others, the Comptroller also serves himself. By developing practical skill to work with others harmoniously and by enriching his specialized knowledge with the broad operations and

management aspects of the entire command, the Comptroller himself becomes a bigger individual. He fortifies himself with key assets needed by senior commanders and staff officers. Therefore, because of their importance, how well he applies human relations to Comptrollership may well determine the success of his professional future in the Air Force as a whole.

CHAPTER VI
CONCLUSION

It might be said that in the preceding chapters the "factors bearing on the problem" were discussed. Now, on the verge of closing this study, we have arrived at the place to reach conclusions.

To generate conclusions in traditional, staff study style cannot be done. The nature of this study does not lend itself to such a procedure. Throughout, we have considered Comptroller thinking and acting in many work situations. In each such work situation, the three basic factors — the Comptroller, the people around him, and the conditions — were different. It would have been so had many more work situations been considered.

Therefore, the lack of logic in extracting specifics to generalize about human behavior is evident. I cannot stress too strongly that each single specific must be carefully and objectively considered in the full fabric of each particular work situation.

However, in the sense of overall thoughts, rather than specific facts, some conclusions can be furnished. Accordingly, an effort will be made to spell out those qualities which seem to be especially desirable in Comptrollers; qualities which seem to evolve logically from the earlier chapters.

Before we proceed, however, one point must be clearly understood. These impressions should not be viewed as the personal characteristics making up the ideal Comptroller. Such "pink pills" cannot be concocted and prescribed in Comptrollership any more than they can in other fields of endeavor calling for collaboration with human beings. They cannot be donned like an item of clothing. Accordingly, the characteristics which follow should be looked on only as guides for individual self-appraisal.

First, let us observe the Comptroller from a remote point, seeing him broadly as a member of the top-management team. From this distance, it is reasonable to believe that the ideal Comptroller should possess essentially the same characteristics as the ideal civilian executive. What does the latter look like? There are many interpretations, as many as there are observers. Generally, these interpretations follow the same pattern although the actual words and their arrangement may differ. The one I subscribe to was authored by Dean Donald K. David, Harvard Business School. Here are the qualities of an ideal executive as seen by him:

a. The ability to get other people to work effectively.

b. The ability to make decisions in the light of facts available and under the pressure of time.

c. The instinctive acceptance of responsibility.

d. An understanding of the economic, social and political forces which shape environment in which he operates.

Having this general picture of the ideal Comptroller, we are ready to learn more about him. Let us move closer and sharpen our focus. From this new vantage point, we see him in a military setting, striving to overcome a wide variety of human material problems, under pressure. Here are the details:

a. An understanding of the missions, procedures, responsibilities and major problems of all organizations in the command; knowledge of how they are inter-oriented toward accomplishing the command's mission.

b. The technical knowledge and ability to supervise accomplishing the technical functions assigned to him.

c. The ability to gain real authority.

d. The ability to communicate effectively both orally and in writing.

e. The ability to select the right subordinates, to balance them and mold them into a harmonious, productive team.

f. The persistence not to halt at symptons, but to seek out causal factors.

g. The ability to objectively boil down voluminous information into its most crucial aspects.

h. Initiative, imagination, resourcefulness, constructiveness and persuasiveness impelled by energetic mental and physical activity.

These general and specific qualities having passed in review, what overall impression do they leave? Of all the qualities, few possess technical flavor. Virtually all smack of human relations, either directly or by connotation from the substance of the preceding chapters. We thus have convincing proof of the vital importance of applying human relations to Air Force Comptrollership.

Finally, a few words as to the future of Air Force Comptrollership in terms of human relations. There is no doubt that Air Force Comptrollers have the capacity to become more cognizant of the human aspects involved in executing their missions. Coupled with a curious, determined will, this capacity can easily be translated into beneficial action. We must never forget that our richest, most critical resource is man. Given the opportunity, he can become more satisfied, more enthusiastic, more productive.

This concludes the series of articles on Human Relations Applied to Air Force Comptrollership.

APPLICATION AND MANAGEMENT USES OF COST AND PERFORMANCE DATA

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The Army Command Management System (ACMS) has been with us for about three years now; progress has seemed slow, - at times painfully slow. The real magnitude of the change it has made in our way of operating is only recently getting Army wide understanding and acceptance. Many people felt for a long time that attempting to mix financial management with army operations could be likened to the minister who warned his congregation that alcohol and gasoline don't mix. One skeptic insisted on finding out for himself, and reported later, "The reverend's wrong. They mix all right--but they sure taste terrible." It would seem that we have now reached that point in time when even the taste is not so bad and where we no longer need crudade for ACMS but need rather to improve and simplify it. One of the ripest areas for improvement at the moment is in the uses being made of cost and performance data. We have found that within the same levels of command the uses made of cost and performance data occur in direct proportion to the receptiveness of personnel to the principles of ACMS. Not an unusual situation I admit, but one which needs to be constantly borne in mind.

Commanders for the most part have discovered that a knowledge of the value of cost and performance data allows them to become managers in fact. A commander and key staff officer is no longer at the mercy of the technician in understanding and using cost type reports or basing decisions on these reports. This in turn requires activity and program directors to examine closely and continuously such cost and performance data as is available and to improve both the utilization of it and performance at the same time.

Also worthy of note is that newly assigned commanders and/or staff officers in the Class I system in the ZI now have a better than 66% expectancy of having a good working knowledge of ACMS at the start of the new assignment. This renders unnecessary most of the many briefings conducted in the past on the basic applications or role of C&P data at the installation level. They have already found uses for or envisioned the basic role of C&P data in their management duties. It then remains to develop expanded uses since the limitations really lie in our own imaginations.

The fact that we are only now - after three years - advancing into an era of increased use of cost and performance data at the ZI Army headquarters and higher level is merely an indication of the real purpose motivating the design and installation of ACMS. It is well to remember at this time and reestablish in our thinking, if necessary, that ACMS and cost and performance data use is designed primarily for the installation and lower level. It would be an unfortunate thing indeed if the increased use of cost and performance data at higher levels would act to increase the volume and complexity of cost and performance reporting.

Recently I spoke to the commander of a Class I installation to get his views on C&P data. They were similar to those heard over the past year whereever I have visited. He stated that he found his C&P summary data to be an excellent tool by which he could check the performance of his activities in terms of cost. It also provided him with timely information, in one package, which showed him what had been done, the job or work yet to be accomplished and the resources still available with which to do it. He wasn't just quoting from the manual, he meant it. This commander stated that more and more reliance was being placed on C&P throughout his installation and that review and analysis of the data has provided logical answers to the question of "how" and "why" when applied to cost and performance. He is requiring his staff to use the C&P data whenever practicable.

Redistribution of resources is a problem arising frequently. Use of C&P data to assist in this area ties in directly with analyzing program effectiveness. Let us picture that the C&P data review indicates supplies programmed for the Post Engineer have not arrived. A further check reveals they will not arrive until Fourth Quarter, this year or First Quarter, next year. However, the station QM Field Maintenance activity is short in cost ceiling for needed repair parts or supplies. The G4 changes cost ceilings promptly to provide the Quartermaster Activity Director immediate relief. Fort Jackson made such prompt managerial use of C&P data during the First Quarter this FY. In another illustration of the same problem, Fort Gordon's programmed use of 2600 funds for First Quarter was not actually developing, as indicated by their abbreviated monthly C&P reports. These funds were made available to Third Army for redistribution - these were particularly welcome in light of obligational limitations with which we are all familiar.

Let us now consider a brief illustration of review and analysis of operations. Why does it cost the Post Ordnance at some post so much more to prepare and post supply documents than it does Post Quartermaster at the same post when management surveys indicate similar procedures are being followed? A Fort Bragg R&A preparation noted this difference in reviewing unit costs and is investigating. R&A is rapidly emerging from its beginning of a figure-citing, meaningless cocoon. Due to improved document flow and posting techniques and mechanized data processing combined with increased

knowledge on the part of sub-activity, activity and program directors as to their operations and control thereof, R&A is becoming a weekly, and sometimes almost daily, way of life. Operators are no longer satisfied with monthly C&P data from F&AOs - some want it weekly, and more and more you hear, "We can't operate without it!!" - The C&P data is not just being filed, it is being used.

Corrective actions frequently are highlighted by C&P data. Fort Rucker's costs of operations in the First Quarter, FY 59 were rapidly mounting in excess of those programmed. Analysis of aircraft operations and maintenance indicated: (1) Program guidance was at variance with other performance directives; (2) cost and performance factors were faulty due to unprogrammed changes in types of aircraft utilized. By the timely availability of C&P data, management was notified of the trouble areas and now solutions are being sought. C&P data do not necessarily provide corrective actions but help pinpoint areas needing managerial attention.

At this point you might feel like the fellow who remarked - After reading all the epitaphs in the graveyard, you wonder where they bury all the sinners. There is no Machiavellian desire to introduce a discordant note in the discussion, but all is not yet sweetness and light. Some installations still are not having quite as much success in utilizing C&P data as a management tool. At one, it was noted that there had been no formal review of costs as part of program accomplishment. Although the data was timely and reasonably accurate, management had made no formal use of it. At another installation, procedural weaknesses in the maintenance of cost records coupled with a failure to reconcile these records periodically, resulted in unreliable cost reporting. Consequently, management could not rely on the accuracy of the C&P data. I shall return to this point of accuracy later.

At Army level, use of C&P has generally been slower than at the installation level. However, the staffs, aided and abetted by command emphasis, are all seeking a fuller understanding of C&P data and its application as a tool of management.

At headquarters, Third Army, as one example, C&P data is used extensively in the following 3 areas among others:

(1) Analysis of programs and program effectiveness: G3 and G4 carefully analyze installation C&P reports on installation support to STRAC units following a review of that portion of installation BEPs and Quarterly fund reviews pertaining to such support. This analysis will prove more fruitful later on as a result of the recently revised Management Structure accounts which more clearly delineate STRAC unit C&P data. The Technical Service Activity Directors consider C&P data in planning their technical visits to the stations - studying the C&P data helps to point out the trouble spots that require investigation and study.

(2) Comparison of installations' costs and performances. The Headquarters Activity Directors, particularly the Technical Services, are comparing performance and costs of installations' operations, using unit costs as points of reference. The Quartermaster has developed a sound pattern of analysis and control of specialized activities, such as laundries, through the use of C&P data.

(3) Elimination of Duplicate Reporting. Based upon C&P data made available to Third Army Headquarters, the G4 has prepared a comprehensive study on the possibility of elimination or reduction of reporting in the technical services, noting that much of the information reported in the technical reports is available in C&P data. This is being held in suspense until the results of the Ft. Knox Model Practices Survey have been completed.

Within the last year, surveys of ACMS operations in the ZI Armies, by a COA team, disclosed many unnecessary accounting records which were being maintained merely because there was too little faith in the new system. As these duplicate records are eliminated and commands begin to rely on what ACMS provides, much more effort will be directed to insuring that current records are accurate and meaningful. Uniformity of accounting procedures and reporting are necessary prerequisites to the maximum utilization of Cost and Performance data at USCONARC. Much has been done at USCONARC to improve the quality of Cost and Performance reports. We are continually working toward the simplification of accounting procedures and the elimination of duplicate records.

Commands are also constantly being urged to eliminate excessive detail in the management structure and resultant cost accounting, so that this unnecessary workload may be applied to the accumulation of only that minimum information considered to be essential for effective resource management and reporting.

At USCONARC, quite a long time elapsed before the staff exposed themselves to ACMS. Now, the G1 for example is using C&P data at an ever increasing rate. Recently, additional funds were made available to USCONARC for the support of an increased processing workload of Reserve Forces Act personnel. FY 58 C&P data provided the basis used for distribution of these funds to the ZI Armies.

Recently, the G3 Section was asked to determine the costs involved in centralizing all basic airborne training at the Infantry Center at Fort Benning. Cost estimates for the first year of operation, to include unfunded costs, were supplied within an hour and this despite the prevailing 99° weather and humidity of 100% for which the Tidewater Peninsula is so noted.

In September of this year, CONARC was able to determine at the request of the Chief, National Guard Bureau, that it would be too expensive for the NG to undertake the re-

sponsibility for the six month active duty training required of Reserve Forces Act Personnel. The G3 Section was able to produce cost data, with relative ease, showing that the active army could undertake this training for $3200 per recruit. This figure was well under the $5600 estimated by the NG to conduct the same training. (Training costs in this instance are computed by including all training costs; e.g. clothing, pay subsistence, travel and allowances.

In reviewing the cost and performance reports during the first year of ACMS and considering management uses to be made of the report, it became evident that the establishment of cost ceilings or objectives by PEA or SEA at USCONARC level was not compatible with the principle of decentralization and flexibility of programs. Some activities and functions do not lend themselves to management through cost controls. It also became evident that the program guidance at this level must be expanded. Here was a key to program and budget management at USCONARC level. At each re-writing of USCONARC priorities, considerable staff effort has been devoted to try to define clearly the missions of the ZI Army in some order of priority. In conferences and communication with ZI Armies, the problem of better guidance, especially in operation and maintenance of facilities, continues to be raised. A recent change to USCONARC Operating Program established specific priorities and objectives in operation and maintenance of facilities activities to assist commanders in orderly reprogramming when necessary.

The cost and performance report is designed to provide data for analysis of the effectiveness of utilization of resources in achieving program objectives. In attempting to use the cost and performance report for this purpose, it has been found that this is a difficult undertaking at the echelons above the installation level, since USCONARC program objectives are not in consonance with the present management structure. Under the present budget structure, activities below the major activity level (i.e. PEA and SEA), financial data is programmed and reported on a cost basis. Fund resources from Department of the Army, USCONARC and the ZI Armies are programmed generally on an obligation basis, without reconciliation to costs.

The establishment of program objectives in terms of "costs" is a real and immediate problem. Some headway has been made at USCONARC in bringing cost objectives into the program system in terms of emphasis on the reduction of costs in certain areas. These objectives were published in a recent change to USCONARC Operating Program. Some were based on Department of the Army FY 1959 program guidance. These objectives included a general reduction in unit costs, a reduction of costs in headquarters operations, supply handling operations, local maintenance and management of facilities and field maintenance.

It is recognized that this is only a step toward establishing "cost" objectives. Further refinement in this area is necessary to facilitate comparison of various cost elements between commands and to finally determine acceptable cost limits for each PEA and SEA. However, it is not visualized, that at USCONARC level it will be necessary to establish cost ceilings or objectives at each PEA and SEA. It appears at this time that only a few accounts at PEA and SEA level, such as deferred maintenance, special field exercises and overhead costs in Headquarters operations, would come under surveillance of USCONARC. Cost objectives by USCONARC for programs should be exercised generally at the major activity level. It is assumed that eventually the ZI Armies will establish program cost objectives for most of the activities related to each PEA and SEA.

I could go on for some time citing other examples of uses of C&P data. As a matter of fact, I had a hard time in deciding which ones to use. In preparing this article, I felt like the minister who tried to impress his young daughter with the necessity of silence while he was writing his Sunday sermon by reminding her, "You know it's the good Lord who really tells me what to say." "If that's true," demanded the daughter, "why do you scratch so much of it out?" Let me just say that we at USCONARC are making many approaches some have been scratched while in others we have found some successful uses of C&P data as a management tool and will depend upon it more and more as we develop experience with it. We hope the same will apply to the DA staff.

At this time, I would like to discuss some existing deficiencies noted in C&P reporting. Accurate reporting is essential if C&P reports are to be used in achieving better management. Let me emphasize this point by quoting from a recent Army Audit Report:

"....examination of records maintained at installations and reports submitted to Headquarters.....disclosed numerous errors in the maintenance of records and the preparation of the reports submitted. The errors were of such significance and frequency that, generally, the Cost and Performance Reports were not considered of sufficient reliability to permit their use as effective management tools."

We at USCONARC have noted similar inaccuracies. Recently at the request of the Deputy Chief of Staff, Logistics, USCONARC, a review and analysis of USCONARC Medical Activities was made, based largely on the Fourth Quarter, FY 58 C&P Summary reports. Here are two comments regarding the accuracy of the Army reports:

(1) "It was necessary to include information that was obviously incorrect."

(2) "The figures from X Army must be ignored as they have again submitted an obviously incorrect report on workload performed." The value of the R&A might well be questioned

in light of these type comments.

Another area that requires attention is the use of performance factors. Effective comparative analysis between Armies in measurable areas is not possible if performance factors are not reported on a uniform basis. This was the situation in FY 1958 reporting. We hope that this situation has been corrected by the Implementation of AR 1-11, this past July.

Performance factors must be realistic if performance data is to be of value. Performance measurements that are unrealistic or applied to areas that are unmeasurable, are of no value to the staff and are a waste of time and money. In F&A operations, as an example, performance is measured by the number of vouchers processed. This yardstick is rather unrealistic - it fails to cover the increased processing workload in the F&A shops under integrated accounting. Therefore, performance data in this area is of limited usefulness to the staff. It is hoped that work being undertaken in this area by DA will help to alleviate this problem.

Reporting is still to excessive and expensive. USCONARC is doing everything it can to cut down reporting requirements so that the field will have less data to compile and have more time for better documentation and analysis. All other levels of command must continuously pursue a like course.

Much work has already been done in this field. Specifically, within Headquarters USCONARC in one staff area alone, reports discontinued in the last quarter of FY 58 resulted in a savings of $25,550 annually. At this time, 3 other reports are being considered as unnecessary and, if discontinued, will result in still greater savings - in preparation time as well as dollars.

Now, let me discuss for a few moments other projected uses of C&P data:

At the installation level, C&P data will be used to an increased degree in the formulation of plans. The operating program and BEP are now for all practical purposes, synonymous. Installations will forecast their requirements earlier, guidance from higher headquarters should be on the "exception" or "major change" basis only, and installations will be able to analyze and report the impact of these promptly.

Stabilization of accounts, refinement of performance factors, and experience gained in management use of C&P data will permit development of meaningful station standards of performance and costs - with emphasis upon unit costs. Manpower control will be integrated into these standards, thus probably eliminating the necessity of higher headquarter's control via manpower surveys - at least we can dream.

At Army level, more and more data for the Command BEPs and the Commander's statements will be based on C&P data. This data will be definitive and accurate in details and justification. The ultimate aim is to develop and standardize installation and ZI operating costs to such an extent that only the "unusual" or new proposals need be amplified to USCONARC and DA.

It is anticipated that C&P reports will do away with many special reports on actions required by Army headquarters. Supervision will be done by a review of the C&P data that will reflect action taken by the installation.

Many of the projected uses of C&P data mentioned at Army level will be used at USCONARC to fit our headquarters requirements. Specifically, in the logistics area the G4 intends to use as a primary means of control, a system of reporting that will disclose meaningful operating statistics in various activities. Much of the required information is already included in present ACMS reports.

Under study at USCONARC is a proposal for the next change order to our Operating Program to establish cost ceiling (or objectives) at major activity level and to include operation and maintenance of facilities at appropriation level. The cost ceiling for operation and maintenance of facilities at appropriation level will in effect establish operation and maintenance of facilities as a separate program for purposes of program development and execution. This is basically what the ZI Armies have been requesting. One undesirable feature will be the absence of authority to adjust between the benefiting budget programs. If a workable financial management plan can be established for operation and maintenance of facilities activities within O&M,A, authority delegated by DA to the ZI Armies should be possible for the purpose of adjusting between benefiting budget programs to maintain a proper level of operation and maintenance of facilities

We have not completely ironed out all the bugs in cost and performance reporting. There remains much to be done in the purification of C&P data as well as simplifying the accumulation of data. Implementation of AR 1-11 along with possible revision of report forms, should resolve many of the reporting problems. Using the performance factors prescribed in the new AR 1-11 should provide uniformity throughout the ZI Armies and thus help to make C&P data more comprehensive to management at all levels of command.

Even more important, a good deal remains to be done in the training of management as to the potential use of this data. ACMS is complex, but has proven its value. However, it requires people who believe in it and understand it, in order to make it completely successful. It's our job to help these people understand its great value to management. "Costs" and financial management are here to stay.

In considering the future use of cost and performance data we must assume that the Department of the Army fully intends to manage its financial resources on a "cost" basis. Up to now, financial management as it relates to use of fund resources, has been primarily on an obligation basis. Under our financial manage-

ment concept, "costs" are the principal factors to be considered in evaluating program progress in relation to program objectives.

Several other points bear emphasizing. All command echelons above installations should make a maximum effort not to hamper future progress by imposing impossible deadlines or asking for information that the C&P data being compiled is not designed to provide. At the ZI Army level, the staffs are learning the true value and uses they can make of C&P data. At the installation level, commanders and staff officers who have talked frankly with me stated they do not want to revert to pre-ACMS times and have to operate without C&P data. At our Headquarters we are just beginning to get our feet wet but already our program directors are enthusiastic over the possibilities of uses we are and can make of C&P data.

Commanders and staff officers now invariably discuss their operating problems in terms of dollars and financial management has reached a point never known before. C&P data and the uses of it have spread an infection of cost consciousness that parallels even the impact of the depression of the 1930s.

In maintaining our combat readiness, keeping our soldier trained, equipped, housed and fed, in the face of yearly diminishing appropriation bills, ACMS is now playing an important role through the C&P data it provides to assist in making the necessary command and management decisions.

To illustrate this point, let me leave you with two final examples of how C&P data can be used. These have been saved for last because I feel that they point up the main theme of this article - C&P data is available, is valuable, and can be used daily as an instrument of command and management.

The examples concern the work of a Department of Defense team conducting a continuing study of the relative comparability of operating costs between the military services. One facet of this study is to determine the average costs involved in training a basic trainee for 8 weeks. A G3 representative from USCONARC accompanied the team. Prior to leaving USCONARC, our team member estimated the training costs from C&P data available in various staff sections. Team data compiled to date indicated that his original estimate is within $50 of the team's estimate!

A second facet of the study is to determine how each service applies available resources to provide installation support needed for a sizeable group of combat or tactical troop units. Recently, the team visited Fort Lewis, Washington and the US Marine Corps at Camp Pendleton, California.

To facilitate the conduct of the study, an advance copy of the Fort Lewis Cost and Performance report was furnished the team, along with other pertinent information. It was several days however, before the team realized the value of the report in conducting the study. Questions which were asked by the team were continually answered by Fort Lewis personnel by referring to the Cost and Performance report. The team concluded that most of its questions could be answered by referring to the report. The report then became a constant reference book for all team members as conferences were held with the General Staff and other post activities.

DEFENSE IS NOT PROFIT AND LOSS

Colonel Albert S. Raudabaugh - U. S. Air Force

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There is an old story in the Air Force about a base commander whose unit was having more than its share of aircraft accidents. Higher headquarters was on his back. Finally in desperation he put out an order: "There will be no more aircraft accidents on this base." The story is probably fiction. At least it ought to be. Yet in an extreme form it does illustrate the human tendency to solve a problem by applying some sort of controls or law that worked very well for another problem in another kind of environment but that is completely unsuited to this problem in its environment.

Nowhere has this tendency been more evident than in the area of fiscal controls procedures in the military establishment. During the past eight to ten years much pressure has been put on the military establishment to use business principles and procedures. No one can question the worth of these procedures in the business world. The growth of American industry has been phenomenal during the past decade. However there are certain fundamental differences between a military organization and a business organization. These fundamental differences must be recognized. The premise that "what is good for business is good for the military" is not necessarily valid in all instances.

Recently the Air Force, along with other Government departments, has been required to install an accrual accounting system in addition to its other accounting and fiscal procedures. The primary argument in its favor was that it had been an indispensable tool of business managements in reflecting profit and loss.

The fundamental financial control system of business is accrual accounting. It is a calculative service that records, classifies, and periodically summarizes activities in terms of dollars, the fundamental requirement being to place income and expenses in a time period generally monthly in which they are consumed or used. Accrual accounting has served business well. But this does not necessarily mean it can be transferred in total to the military with the same end result. In fact the direct transfer of a business-type accrual accounting system to the military may have unfavorable results because it could cause personnel to be needlessly assigned and could provoke erroneous conclusions that would have a harmful effect on the military.

What are the major deficiencies in a business accounting system when applied to the military? What is the minimum financial accounting system necessary for the Air Force? Any person assigned to military accounting who is not materially productive is wasteful to the Air Force and, consequently, to the defense of our nation when manpower is limited.

THE PRESSURE FOR ACCRUAL ACCOUNTING

When dollars enter into the operation of any organization, an accounting requirement is established. At the same time, because accounting is a service, the minimum of effort should be devoted to it, with the maximum effort going to the operational side of the organization. An accounting service should be productive and furnish definite assistance to the operational side.

The first pressure on the Air Force is to account to Congress for the money appropriated. These are taxpayers' dollars and are held in trust by the Air Force. An accounting system has been in use for many years to account for these funds. This system is known by various names, such as an appropriation accounting system, a fiscal accounting system, or an accounting system on a cash basis. Appropriated funds are obligated at the time a firm contract is assumed by the Government. The funds are then expended at the time the contract is completed or at such other times as may be specified in the contract. This system accounts for all the dollars expended by any Government department. Once an item is paid for this dollar-accounting system drops the item, which is then picked up as a line item in a supply or equipment account.

The present procedure is for Congress to appropriate money to the Air Force in two broad categories. One is termed "no year money" — money appropriated that will be available to the Air Force for obligation until it is expended. This category includes major programs or items of equipment which have long lead-time requirements, such as aircraft, other major procurements, and the research and development program. Congress can control these expenditures on a line-item basis. For example, the number of B-52's to be purchased at the price per aircraft can be shown as a line item. But because of the long lead time the actual requirement for funds may extend over a period of several years.

The second major category of money appropriated to the Air Force has to be obligated during the fiscal year in which it is appropriated. The two major activities covered by this type of money are the operation and maintenance of the activities and installations of the Air Force and the pay of military personnel. The dollar requirements for Air Force operations, maintenance, and military personnel are periodically summarized for Congress on an annual basis at the time the annual budget is submitted. In addition, numerical and grade ceilings for both the military and civilian personnel paid from these two appropriations are placed on the military by the appropriation act. These limitations af-

ford Congress an additional control over military expenditures.

As indicated above the fiscal accounting system drops an item once it is purchased. It does not provide a dollar control over inventory. Once an item has been purchased it becomes a stock number and quantity in the bin of some supply warehouse. The Air Force has corrected this deficiency by installing a system that accounts for all the inventory of the Air Force by dollars.

So the Air Force has, under the fiscal accounting system, a method whereby the dollars appropriated to it by Congress are accounted for. This is the minimum accounting system considered necessary to discharge the Air Force's responsibilities to Congress for the dollars entrusted to it. To this minimum has been added a monetary control system over the Air Force inventory.

A second major pressure is to make over the military in the image of business, at least from an accounting point of view. What this means is that an item of material is obligated or bought, put in an inventory account, and then finally accounted for when it is consumed or used. The activity consuming or using the item is charged with the expense. Until that time the item is considered an asset. The accountant follows the item to the activity actually using it. In the Air Force for example a carburetor will be purchased and placed in supply, but not until it is put on an aircraft will the cost of that carburetor be charged to the activity using the aircraft or to the maintenance squadron repairing it. Many additional people and much additional paper work will be required to follow the item to this point.

HOW ACCRUAL ACCOUNTING SERVES BUSINESS

The accrual accounting system which so effectively serves the businessman is based on a relatively simple formula. This formula makes possible a comparison of the efforts of the corporation with its accomplishments. Professor A. C. Littleton, in his book Structure of Accounting Theory, states: "The central purpose of accounting is to make possible the periodic matching of costs (efforts) and revenue (accomplishments). This concept is the nucleus of accounting theory, and a benchmark that affords a fixed point of reference for accounting discussions." Stated as a formula it is: income minus expense equals profit (or loss). The civilian accountant must have available these two elements, expenses and income, in his accounting system in order to determine the net profit of the enterprise. Costs are arrived at by internal accounting procedures. Income is determined by the external and impartial judgment of the consuming public.

The civilian accountant establishes various accounts containing dollar information which support the income and expense activities of his company. This information he summarizes periodically, generally monthly, for the use of management. The investors reading this article are familiar with the profit and loss statement of a corporation. In general, this statement deducts the expenses from the income of the corporation and arrives at the net profit of the corporation for the period.

Management receives information from the accountant on a periodic basis. Using this information management compares one month with the next to determine progress and to see how profit and expenses compare with past performance. In measuring his corporation's efficiency, the accountant prepares various ratios: income per dollar of gross plant and equipment; income per dollar of gross equipment only; income per square foot of floor space; income per dollar of working capital; ratio of salaries and wages to income; and ratio of operating profit to income. Research indicates that the income element is the basis for measuring the efficiency of the operation. Using these ratios from month to month the manager is able to control his business. If expenses measured against income are increasing steps are taken to correct the situation. Thus the manager of a business corporation sitting at any echelon or level of management can determine the efficiency of any portion of his business. The accountant furnishes the businessman the primary quality measurement with which he controls and operates his business.

ACCRUAL ACCOUNTING IN THE AIR FORCE

In determining whether accrual accounting can serve the Air Force, we must take a closer look at the civilian accountant's equation. You will recall that this equation is: income minus expense equals profit.

The military establishment is not a "profit-making" organization. Webster defines profit as "accession of goods, valuable results, useful consequences, avail, gain, excess of returns over expenditures." Only in a broad sense can this expression apply to the military, if it is assumed that the American people expect "a valuable result" and "useful consequences" out of a military establishment when needed. In particular, they may expect an "excess of returns over expenditures" when wartime military results are aggregated. When the military establishment is spoken of as not being a profit-making organization, a restricted and narrow interpretation of the word "profit" is being used, profit in a dollar sense. Proponents of wholesale introduction of business methods into the military may not fully appreciate this distinction. The dangerous aspects of applying the business accountant's yardstick make their entry here. The military, in war or in peace, cannot make the type of profit that is understood by the civilian accountant. Its product, or "profit," is not subject to the precise standards and measurements available to the civilian businessman, although

the same interactions are present.

To fully understand the fact that the military establishment is not a profit-making organization in the restricted sense, it is necessary to take a further look at the civilian accountant's equation. As indicated previously, this equation is composed of two parts: income and expense. There is no question that the military can precisely measure the cost of any military operation. All that is required is the accounting know-how and the necessary reports flowing from the operation itself. The income part of the equation is a different story. When an American businessman sells a product he has produced, he receives dollars as income in return. The purchaser exercises his judgment as to the quality of the product he is buying and the number of dollars he is willing to exchange in return for the product. It is granted that the purchaser may be influenced by a superior advertising or salesmanship campaign. But in the final analysis each purchaser's judgment of the quality of the product he is buying in comparison with the price and quality of similar articles on the market determines which businessman receives the consumer's dollars as income. This income, basically determined by the quality judgment of the consuming public, then is incorporated into the profit and loss statement of the corporation concerned. This becomes the sales income for the corporation. The civilian accountant receives his qualitative measure of the corporation's accomplishments or efficiency almost gratis. Without this factor the formula, of course, would become meaningless.

The National Security Act of 1947 specifies the basic mission of the United States Air Force. It shall be organized, trained, and equipped for prompt and sustained offensive and defensive air operations, for effective prosecution of war, for expansion to meet the needs of war. This mission determines the basic difference between the USAF and a civilian business enterprise. The USAF spends money to organize, train, and equip to meet some undetermined future war. The product of this expenditure is not put on the market with its value or income determined as a competitive product during peacetime. The competition to be met is an enemy—possibly in active combat competition. Then and only then will the "sales or income" value of the USAF be determined, and then only in the broadest general terms. It does not lend itself to any dollars-and-cents type of evaluation to serve as entries in the accountant's ledger.

The civilian manufacturer would be faced with a somewhat similar situation if he stored or warehoused his production. Assume that a company manufactures automobiles. All its production is placed in a warehouse and not on the consumer market. Periodically the latest company modifications are made on all the stored automobiles. Assume further that the manufacturer has only very limited knowledge concerning the automobiles that competitors are manufacturing and selling. Known production costs have been incurred. Now what will be the sales value of the automobiles when placed on the market at some future unknown date? Will they result in a net profit or loss to the manufacturer? Although these questions are absurd from a civilian manufacturer's point of view, the situation is far from being so when analyzed in the light of the mission of the USAF.

The automobile-manufacturing analogy points up the basic difference between civilian and military operations. Both incur cost for labor and material in producing a product. The civilian manufacturer immediately places his product on the consumer market. He is able currently and progressively to measure his accomplishments. He receives income from sales as a definite and immediate index of the cost he has incurred to produce his product.

The product of the USAF is combat potential. It cannot be "put on the market" until war is declared. Men are organized, equipped, and trained. Training is the perennial peacetime mission of the military. The result of this training may be said to be in "dynamic storage." Consequently there is no specific qualitative valuation available in peacetime to measure the military product. Sales income available to the civilian producer as a measure of accomplishment is not available to the military producer. The civilian accountant receives the sales figure in his profit and loss statement as a basic element in measuring the accomplishments of his company's enterprise. The military accountant is faced with the problem of finding a substitute for this sales figure. A closer look at the military operation will indicate that the income side of the civilian accountant's equation is not available. The military accountant cannot provide a qualitative dollar measurement. Several examples that follow sill explain why the "income minus expense equals profit" formula is meaningless when applied by the military accountant.

Take for example the perennial peacetime mission of the military, training. A student is sent to school for a period of time. During the course of instruction many Air Force dollars are expended for salaries of instructors, textbook material, and facilities. The costs are finitely and definitely measurable. But what benefit has the Air Force received for this expenditure? Is it measurable? It cannot be, because the benefit received is the increased knowledge of the individual. No known method is available to finitely measure in dollars the increased knowledge that the student has obtained. It is generally assumed that he will be of greater benefit to the Air Force. But it is impossible to put a dollar tag on knowledge. Even industry cannot include in its inventory the dollar value of its employees.

Another example: a pilot flies an aircraft. He is trained to intercept enemy bombers attacking the United States. Many dollars are expended for gasoline, spare parts, his salary, and many other things to provide this training

for the pilot. Again dollars are expended. What definite, finite value is measurable from this training? Value has been received but what is the dollar estimate of that value? What entry may be made in "accounts receivable" because of the millions of dollars of property destruction averted by a successful intercept?

Another example in which the military is not comparable to civilian industry lies in the fact that military personnel are "captive customers." Take the food service operation. The enlisted personnel of an organization are required to eat at the mess hall if they are not on separate rations. No charge is made for the food consumed; also, no estimate of the quality of the food is obtainable. Can the food's quality be based on the number of enlisted men eating in the mess hall? They have no other place to eat, except at their own expense. In contrast any civilian restaurant manager, within a very short period of time, would be aware of the fact that the quality of his food had fallen off. Customers would not patronize his restaurant. His dollar income would be considerably reduced and he could immediately start checking to see what was wrong. About the only methods available to the military commander for checking on the quality of food served in a dining hall would be gripes or inspections. The dollar income or qualitative measurement of the operation that is available to the civilian restaurant owner is not available to the military.

ATTEMPTED SOLUTIONS

Much effort and money have been spent attempting to find solutions to the problem of measuring accomplishments from military expenditures against the dollar cost. Several suggested solutions have been put forth. One is to compare cost with budget. A second compares actual cost with some cost standard.

First, what is involved in comparing the cost expended by a military organization against the amount of funds budgeted for that organization? A budget is merely an expression of the dollar cost required to operate an organization during a period of time. Therefore all that is being measured is costs against previously estimated costs, or, in other words, the commander's ability and accuracy in budgeting and estimating. There are no black or red figures in the commaders's ledger as there are in the business accountant's.

A further consideration. What in this instance would determine the efficiency of a commander? Would it be his ability to zero out his budget? Would it be his ability to "save" money in these days of austerity? If to be efficient the commander must zero out to his budget estimate, that can very easily be accomplished on a dollar basis. If he is to "save" money, is it assumed that this original estimate was "fat" and because of it he showed definite dollar savings as compared with his original estimate? Again, whose budget is to be considered? Normal rotations would place each commander under the domination of his predecessor. The predecessor's ability to budget would determine the efficiency of the commander that suceeds him.

The second solution has been to use cost standards as a basis of comparison for accrued costs. Example standards are cost per flying hour, cost per line item of supply, and cost per meal served. But again this appears to be unfair to the base commander. He has little control over which military personnel are assigned to him. Their ranks and abilities are, in a large measure, predetermined by higher headquarters. He has little control over the fixed facilities with which he is operating. Such things as the type of material in his runways, the availability of rail facilities to haul in his supplies, the distance he is from his ration point, all enter into the cost although he has little or no control over them.

The income side of the equation is not available to the military accountant. Also it does not appear that suitable comparisons to take the place of the income side of the equation are available either. Consequently the military accountant is placed in the position of finitely measuring costs but not having any suitable measure with which to compare them. The question might be asked the civilian accountant. "How much accounting would you be doing today for your industrial concern if you could not use the basic accounting equation?"

THE SOLUTION

To solve this dilemma, the fundamental difference as between military and civilian accounting in the accrual area must be recognized. Once this difference is recognized, the basis for decision should follow..

The necessity for dollar information in the military is not questioned. The expenditures in the military establishment are enormous. But by the same token resources should not be put in any area from which definite benefits will not result. Under the limited personnel ceiling of the Air Force every man in the accounting area is one less man maintaining an aircraft on the line. There is much good management information in the present fiscal expenditure system. Utilization of this information should be fully explored. When coupled with an accounting system for the inventories in the Air Force it will provide a wealth of usable information.

This article has pointed toward the necessity of finding some kind of qualitative measurement for the effectiveness of a military operation. The military would have been derelict in their duty if they had not developed and used such a system through these many years. This is an inspection system. A person qualified in any particular area makes an on-the-spot visit and report as to the quality of the operation being inspected. While this is a judgment meas-

urement not subject to the finite measure of dollars, it would appear to be the best and only system available to the military. Dollars do provide a general measure of effectiveness. They can measure the relative merit of two plant managers. But they cannot judge the relative merit of two base commanders.

It is believed that the maximum financial accounting system for the Air Force should consist of two main elements. The first is a fiscal accounting system – which accounts to Congress on the basis of the appropriation account structure. The second element is a system that will account for the inventory of the Air Force on a dollar basis. Concentration on these two elements will provide to a commander the maximum of useful financial information with a minimum of personnel and effort assigned to the financial area.

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THE AUDITOR LOOKS AT THE OPERATIONS OF NAVY CLUBS AND MESSES

Will Linsert

Comptroller Office - U. S. Naval Station - Argentia, Newfoundland

(Published as an interesting discussion of a practical problem in which all services are concerned)

By way of introduction, it should be understood that these observations are concerned with only a limited group, namely: clubs and messes at Naval shore establishments located both in the continental United States and overseas. It should be further understood that these observations cover only those operational deficiencies which have financial significance. It is generally agreed that the purpose of these clubs and messes is to provide the finest recreational and social facilities for all service personnel at the least cost, both to the government and to participants alike. Spotlighting deficiency areas may prove of some assistance to management in attaining desired goals.

The conclusions drawn are the result of reviews conducted by personnel from the staff of the Comptroller Office at the U.S. Naval Station during the past year. During this period, operations of a cross-section of the various clubs and messes, both "open" and "closed", were examined. Clubs and messes included those in different catagories, as follows: officers, enlisted men and civilian employees, facilities all of which are generally extended to dependents and guests of qualified members. Revenues are derived from two sources, namely: appropriated funds and cash revenue from sales to members for food service, beverages and tobacco. Revenue from such sales are accounted for by double-entry bookkeeping methods paralleling commercial practice. This discussion will be limited to the problems involving the control of such revenue, otherwise appropriated fund sources will be specifically referenced.

In each case the auditors findings, based on established accounting principals, are discussed with management at the termination of the review. At this time deficiencies are explained and variations from the procedures required by the various departmental manuals and station directives are mentioned in order that supervisory personnel may have an opportunity to make such statements as are deemed pertinent. The findings are then summarized to the commanding officer in a final report. Recommendations approved by him are transmitted directly to the club or mess manager for action.

HANDLING OF CASH

As a whole, most of the activities reviewed were aware of the care required in the handling of cash in its several phases, such as: authorization in writing, for the various change funds; deposits of receipts intact and without delay; the recording of all sales by cash register; checking of daily receipts by someone other than the cashier; the proper safeguarding of cash receipts at all times; the making of all disbursements except those from petty cash, by check; the inclusion of cash overages and shortages on the daily activity reports and recorded in the books, and the safeguards required in the preparation checks, also the controls, signatures, endorsements and the cashing of checks.

Admittedly few activities had complied with the instructions in their entirely although the observed deficiencies were not considered excessive. It was found, however, that the physical safeguards involving cash custody posed a problem to the majority of the activities. Regulations require that cash remaining undeposited overnight be kept in a locked safe accessible only to one person, usually the manager. Compliance is difficult as in most cases, an assistant takes full charge when the manager is absent because of leave, staggered work shifts and for other reasons. This means that invaribly two employees have access to the same safe. Although these employees work together, as a rule, with a minimum of friction, the maintaining of separate safes is advisable. With limited resources as well as office space, however, the practicability of adding a second safe is questioned. Admittedly further study is needed in order to find an acceptable solution.

COST CONTROLS AND OPERATIONAL GOALS

It is recognized that the successful operation of a Navy mess or club, like its Army, Air Force or civilian counterpart, requires careful financial planning in order for the activity to achieve operational goals. This means that definite profit goals should be budgeted for each department and that food, beverage and tobacco items be precosted and priced to meet these objectives. Moreover, for the guidance of management, recommended gross profit percentages expected from each club department should be furnished.

Obviously the purpose of the controls is to detect promptly any variation from budgeted goals so that corrective action may be taken in time. The types of controls are left to the discretion of the management of the various activities. This also applies as to whether daily or weekly controls are employed.

It was found that the successfully operated activities invariably maintain a workable cost

control system and use it to detect even the slighest variation profit-wise. Resale consumable supplies have a cost which varies slightly, with the exception of foodstuffs, over a month's period. Therefore, as soon as the daily inventories are computed and the percentage mark-up applied, total sales can be computed within a single percentage point. When abnormal variances occur, management is forewarned and can take immediate steps to remedy the situation before it gets out of hand. Activities without cost control systems showed large fluctuations in profits, however skillful the management. It was further noted that this group, fortunately in the minority, were obliged to engage in a number of revenue-producing schemes and only met desired operational goals infrequently.

PERPETUAL INVENTORY OF RESALE SUPPLIES

A central storeroom, where records of all consumable supplies (foodstuffs, beverages and tobacco) are kept and from which all issues to the various retail sections are made, is a distinct aid to management. It is realized, however, that few clubs or messes are large enough to warrant the expense of space or personnel to provide for these facilities.

Despite this fact, to a limited extent application of the central storeroom principle is possible as most of the activities maintain a bulk storeroom for beverages. The use of separate stock record cards showing all receipts, issues and current balances assists in furnishing data for daily cost control records, also benefits those responsible for the monthly physical inventories. Finally, historic data showing sales over any designated period has proved of real value in the placing of realistic orders.

It was found that those activities which maintained perpetual inventories of consumable supplies were most consistent in maintaining their monthly profit goals. Management generally concurred that should they, for any reason, be required to abandon these records, day-to-day operations would be distinctly handicapped.

RECORDS OF MESS/CLUB FURNISHED PROPERTY

The activities under discussion are responsible for the maintenance of records for furniture, fixtures and equipment falling into two distinct groups, as follows: issues under appropriated funds and purchases from mess/club funds. Our concern is limited to the latter group. Essentially, the requirements are that of items of furniture, fixtures and equipment be entered on individual property cards, that each article be given an inventory number which must be permanently affixed with a metal tag or other similar means and that a consolidated property record be maintained to indicate the total monetary value of all mess/club property.

In the commercial world, it is generally conceded by those who review financial records that data concerning equipment are difficult to obtain, when available are frequently obsolete and that much time is consumed in establishing realistic values. The status of the equipment owned by the activities included in this study coincided generally with the foregoing pattern. Rarely were acceptable records encountered.

In contrast with commercial undertakings, equipment is charged to expense upon receipt and is thereby excluded from the activity's tangible assets. The value of up-to-date records to cover accurately identified items of equipment is as follows: (a) basis for insurance coverage to ascertain whether present coverage is adequate, low or excessive; (b) a convenient source of information when required for replacement by purchase, such as: name of manufacturer, original cost, date purchased and technical data; (c) utilization for verification of the physical equipment inventory required to be taken annually by the station Audit Board. Good management will not knowingly neglect this important area.

CONCLUSIONS

Although the reviews by the Comptroller staff are made much less frequently than the monthly schedule maintained by the station Audit Board, it is felt the results obtained have fully justified the time alloted to this undertaking. In the majority of cases it was found that management took the necessary steps to overcome operational deficiencies and welcomed the suggestions of the auditors whose background of experience made it possible to propose solutions to an assortment of problems. This relationship should be beneficial in assuring continued improvement in station club/mess facilities.

DOCUMENTATION OF ACMS OPERATIONS AT FORT KNOX

By Mr. J. B. Schravesande, Deputy Director of Accounting—Office, Comptroller of the Army

In July of this year the Comptroller of the Army in agreement with Headquarters CONARC and with assistance from DCSLOG initiated an ACMS Model Practices Project at Fort Knox. The purpose of the project was to document a model application of ACMS procedures at a representative large Class I installation with a view to publishing material for the guidance of other installations and operations under ACMS. It was also intended, of course, that the project would result in direct benefit to Fort Knox to the extent of any improvements that could be suggested by the team in respect to the installation's ACMS operations. The project began on 18 July.

As the first step toward providing a complete and understandable record of the proper application of ACMS procedures and concepts in an actual operating situation the team made an initial survey at Fort Knox to determine what the possibilities were for simplifying operations and to suggest revisions in any procedures that did not appear to represent model practices. It then became apparent that some honest differences of opinion existed as to the manner in which the installation was implementing ACMS concepts. In certain respects installation practices were at variance with ACMS theory as published in current guidance material. The installation management considered that such deviations from the theoretical application were not only justifiable but necessary in the particular operating situation existing at the installation. Accordingly, the project plan for documentation was modified to recognize the installation's point of view. Within the framework of an outline covering 20 key ACMS operating areas, the team will set down the facts regarding actual operations at Fort Knox without regard to their deviation from the theoretically model practices. This factual documentation will then be the object of a commentary pointing out the deviations and the reasons therefor. This phase of the project was actually begun on the 27th of October. The team is receiving excellent cooperation from the installation staff so that it should be possible to make a thorough analysis of the reasons for any deviations in procedures. If these reasons are sufficiently sound, it is intended to recognize that an acceptable ACMS operation at one installation may or may not provide the model for operations at another installation. So long as the fundamental objectives under ACMS concepts motivate the operations, there may be two or more possible applications that are sound.

In any event, this project has been undertaken after ACMS has been in operation at most Class I installations for more than two years and at some Class II installations for a comparable period. The project provides an opportunity now to re-examine all aspects of the doctrine and the practicality of the implementing procedures. It is hoped to be able to point out clearly why the system may not be working as well as it should be working in a lot of places. If the causes of this situation can be clearly identified and stated, (and I am sure that the causes do not all originate within the installation) then a basis will exist for corrective action that may well affect all levels of command, not excluding Headquarters Department of the Army. The commentary on the documented operations, which is planned as this kind of an analysis, should be available sometime next month.

In a single area the documentation has been completed. This consisted of the development and presentation on 22 October of a comprehensive review of the 1st quarter's operations at the installation. This was accomplished by installation personnel with the advice and assistance of team members. Prior review presentations had been limited in scope to what was essentially an analysis of deviation shown on the quarterly Cost and Performance Report. The revised presentation was broadened to an appraisal of the over-all effectiveness in accomplishing assigned missions and of the efficient and economical use of available resources. Particular emphasis was placed on the problem of balance between funds, personnel and inventories on the one hand and programmed missions on the other. Full coverage was given to the reprogramming of activities within the 1st quarter and the corresponding redistribution in the application of resources. The presentation demonstrated in a very practical manner the inter-relationship of programming and budgeting at the installation level and pointed up an urgent need for an improved procedure for the exchange of information with higher levels of authority. Some means must be developed for more nearly spontaneous recognition and assistance by higher command levels respecting the installation's problems in reprogramming activities in the face of a more or less inflexible funding pattern.

Documentation of this phase of the project represents an improvement in review and analysis procedures at Fort Knox and will provide the basis for appropriate revision of Department of the Army doctrine on this management technique. The basic material is planned for inclusion in a DA Pamphlet to illustrate by a practical example a composite review and analysis at Class I installation level.

Between 18 July, the start of the project, and the middle of October the team's efforts were largely devoted to two other main purposes of the project. There were, first, simplification and improvement in methods and procedures of the Class I Installation Command Management System, and second, reduction in the work burden associated with complex and detailed reporting to the various technical services under requirements that continue to duplicate in many respects the records and reports under ACMS.

In respect to the first area of effort, that of

simplifying and improving methods and procedures under the Class I CMS, some dozen suggestions were made by the team and not all of them were considered acceptable by the installation staff. It is intended before completion of the project that those suggested simplications or improvements that are deemed worthwhile on further consideration will be written up with the reasons for non-adoption, if that be the case. They will, however, be available for consideration by other commands and adoption wherever they may be, thought feasible.

I should like to mention one of the team's suggestions that is going to be adopted and which is at least one of the most significant as an improvement in procedures. This concerns the integration of the field stock control system with the management of funds available for obligation.

Under the field stock control system there is established a level of supply for each item authorized for stockage in station inventory. Such a level is stated as a requisitioning objective, which is established as the number of the item necessary for a given number of days of supply, based on issues of the past 180 days. For example, the requisitioning objective for a given item might be the quantity needed as a 30 day operating supply, a 15 day safety level and a 45 day supply to cover the requisition and shipping time, i.e., the interval between a decision at the installation to prepare a replenishment requisition and the time when the due-in is received and posted to to the stock record card. The total of 30, 15 and 45 days would establish a 90 day requisitioning objective for the item, meaning that 90 days of supply should be on hand and on order. Each stock record card is reviewed every thirty days and the field stock control system requires that a requisition will be submitted for replenishment of the stock if the "on hand" and "on order" amounts do not add to the established requisitioning objective.

It will be observed that these supply management procedures are designed to assure an adequate "on-hand" supply of all items at all times and this should be the result if the system is fully funded. But when requisitioning objectives are established without any correlation with the funds needed to finance the continuing flow of replenishment requisitions, trouble can develop. If funds run out, requisitioning has to stop. When this has happened in the past it has been possible as a result to run completely out of stock on some items while more than ample supplies for immediately current needs are on hand of other items. The installation management would have preferred to have less of these items provided that by this means the out-of-stock position on the others could have been avoided.

The project team developed procedures that will relate directly the prescribed inventory plan to the planned available obligational authority. Applicable supply regulations are in the process of revision for this purpose and will, in effect, provide for flexible requisitioning objectives geared to the availability of funds.

I will mention one other suggestion of the team that is being adopted. This resulted from a study made of the Self Service Supply Center at Fort Knox. Because of the requirements imposed by Army Regulations and by the Self Service Supply Manual, this activity was accounting for stock both by the technical service responsible for the supply and by store department. A revision to the Self Service Supply Manual will eliminate the neef for this duplicate accounting and will require an accounting only by technical service. It is estimated that the accounting workload will be reduced by approximately 15%.

Let me turn now to the efforts of the team directed toward reduction of the work burden associated with the submission of technical data reports prescribed by the technical and administrative services. It is in this area where the most time has been spent by the team members in recognition of the fact that the administrative workload of installation activities and sub-activities is dictated in large part by the report requirements. Some 25 technical data reports and the related regulations were reviewed. Representatives of DCSLOG, DCSPER, CONARC and the technical services visited the project site on successive weeks beginning in July and extending through the 24th of October. These representatives were with few exceptions the people who were responsible for the existing reporting requirements and who could make decisions that would commit their offices to the changes on which they agreed with the team. It is anticipated that the revised regulations and report formats will be distributed to the field in sufficient time for implementation by 1 January 1959. In every case visits were made to the activities and sub-activities where records were maintained and the reports prepared in order to ascertain the actual workload involved. And in each case this workload was considered in a subsequent examination of each item of information required in the reports in order to develop revised requirements for only the bare minimum of essential information, consistent with the principle of management by exception.

The simplifications that resulted were brought about by insistence on certain guidelines:

FIRST. A single cost accounting system, that prescribed in AR 35-301, is now in effect Army-wide to serve all requirements for cost accounting data. Each revised report regulation will state that these ACMS procedures will be used. So there is no need for duplicate recording of any cost data.

SECOND. The performance data accumulated for purposes of the cost and performance report must serve for the purposes of all other reports in which performance information is required.

THIRD. Information in the reports which

duplicated data in other reports would be eliminated. (This concerned primarily data included in FIA and manpower reports).

FOURTH. Monthly reports were discarded in favor of quarterly reports.

FIFTH. Reporting due dates of many of the reports were relaxed. None of the revised reports will be due for submission to Headquarters Department of Army prior to the 17th work day following the end of the quarter. And all due dates are re-stated in terms of workdays.

SIXTH. Every item of technical information required on the existing reports was questioned with regard to its usefulness to higher headquarters. And, of course, all information required only at the installation level was eliminated from the reports going forward.

I can state, for example, what was accomplished in respect to only three of the series of reports examined. These are, however, three reports that currently contribute heavily to the expenditure of manpower at installation level. They are the Field Maintenance Report, DA form 1510, The Administrative Motor Pool Report, Form TC 104, and the Quartermaster Specialized Services Reports (covering Commissary Operations and the Food Program or Food Service).

1. In reporting on field maintenance a one page report replaces seven pages.

The categories of equipment are reduced from 74 to 19.

The reporting component parts is eliminated; only end items will be reported.

The distribution of indirect costs is eliminated.

All manhour and strength information is eliminated.

The revised regulation eliminates all reference to job costing.

The only reference to accounting procedures in the new regulation is the statement that accounting will be performed under the ACMS procedures prescribed in AR 35-301 (as in the case in all the revised regulations).

The estimated annual Army-wide workload of about 600,000 manhours required to develop the current Field Maintenance Report should be reduced at least 50%.

2. In the Administrative Motor Pool Report, which comes in two parts, the following information was eliminated in the first part:

Man Hours of Maintenance

Indirect Government Shop Costs (Maintenance)

Total Government Shop Costs (Maintenance)

Mileage on Charter Vehicles

Cost of Operating Charter Vehicles

Mileage on Rented Vehicles

Cost of Rented Vehicles

In the Cost Summary Section 8 lines were eliminated in the columns for:

Cost of Operations

Cost of Maintenance

And Total Costs

In the Second Part there was eliminated:

Average Number of Vehicles in Motor Pool Storage

Average Number Satellited

Average Costs for Direct Labor and Direct Materials

Indirect Costs

Total Costs, and

The Cost of Labor for Commercial Shop Maintenance

Some of the remaining information would also have been eliminated except that it is needed for current reporting above the level of Headquarters Department of the Army. A request for relief from these requirements is being prepared.

3. In the Quartermaster Specialized Services reports, which include

The Commissary Store Operating Statement

The Commissary Cost Report

The Food Program (or Food Service) Report

The OQMG has estimated a manhour savings from the present requirements for record keeping and reports preparation of from 50 to 70 per cent.

Of course, this is only a rough indication of what has actually been done. For example, by the elimination of a single line requirement in the Hospital Food Service Report, an entire stock accounting system was eliminated which had required the effort of at least one person at each hospital. This was the requirement for reporting the cost of food issued from the hospital food store room. There was substituted the readily available figure for the cost of food received from the commissary.

I have here a chart which gives a summary of the estimated reduction in workload throughout the Army as a whole for 19 of the reports that were reviewed. The most substantial reduction, although it does not show up that way percentage-wise, was accomplished on the DCSLOG reports, which consisted of the Field Maintenance Report, FIA report and two Stock Fund reports.

I believe if you compute the percentages and add the total it comes to a savings of about 850 man years of workload. I would like to say, however, that while this is the accomplishment that occurred during the Fort Knox project, I want to make sure that credit is given where credit is due. The team undertook the examination of the reports because we knew that most all of the related regulations either required, or inferred the need for, separate recording of cost or performance data or both. Of course, the results went far beyond the elimination of records that duplicated the single system of ACMS records. So probably a great part of the simplification represented on that chart would have been accomplished under other existing responsibili-

ties for reports review, For example, the Quartermaster people came down there with a completely revised and simplified laundry report that would have been made available if there had never been a Fort Knox project. The point is that this total result required the utmost in cooperation from a lot of people.

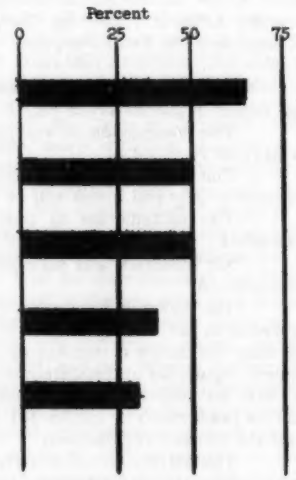
The other thing I want to say is that reporting by an installation under requirements imposed by the Headquarters Department of Army does not represent the full reporting workload at the installation. The reports reviewed by the team are for the most part required by DA from the major commands. This means that this report simplification could represent little or no reduction in the workload at the installation if intermediate commands fail to take comparable action in respect to the reports for feeder information. It is a matter of record, for example, that where Department of Army has relaxed a reporting requirement, one or more of the CONUS Army Headquarters has continued to require monthly reporting in the same old excessive detail. And when a due date for submission to DA by a major command headquarters is 17 workdays, the installation has been allowed 7 workdays and the major command has taken 10 workdays in which to make the consolidation. These are actual examples and are probably not exceptional. So let me urge that each of you undertake a program within your own headquarters to assure that requirements emanating from your level for the reporting of technical data actually represent what can be called the minimum essential. Otherwise, you can be sure that substantial parts of the work burden shown on these charts as having been eliminated will continue to be a drain on the funds and manpower of your installations.

In summary, we are hopeful that the Fort Knox project will prove of substantial benefit to all commands concerned with the problems of bringing ACMS to a level of greater usefulness. First, we hope to produce a documentation of actual Class I CMS operations and a commentary that will point out specifically what our experience to date has shown to be needed in the way of modification in the system or modification in the application in order to attain more completely effective command management. Second, the project has resulted in some simplifications and improvements in methods and procedures. Some of these will be included in revised regulations. All of the team's suggestions in this area that are deemed appropriate will appear in the report on the project and will be available for adoption by all commands if they believe them to be useful, and Third, I am sure you will agree that the project has made a major contribution in the field of reports simplification and has assisted materially toward alleviating the chronic problem of manpower shortages.

ACMS MODEL PRACTICES

REDUCTION IN REPORTING WORKLOAD

	No. of Reports	Original Man-Year Workload
SIGNAL	4	20
TRANSPORTATION	3	456
QUARTERMASTER	5	215
MEDICAL	3	160
DCSLOG	4	1502



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